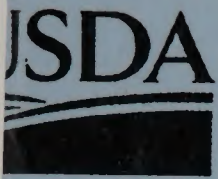


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
aHD1405
.N38
1997



United States
Department of
Agriculture

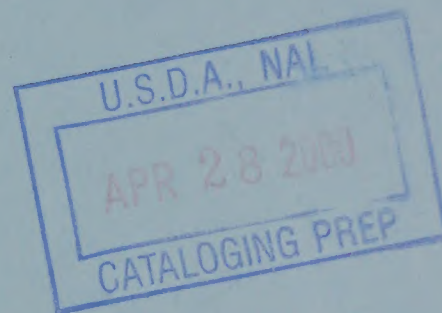
Natural Resources
Conservation
Service

P.O. Box 2890
Washington, D.C.
20013

NATIONAL ECONOMICS AND RELATED SOCIAL SCIENCES MEETING

MARCH 24 - 27, 1997

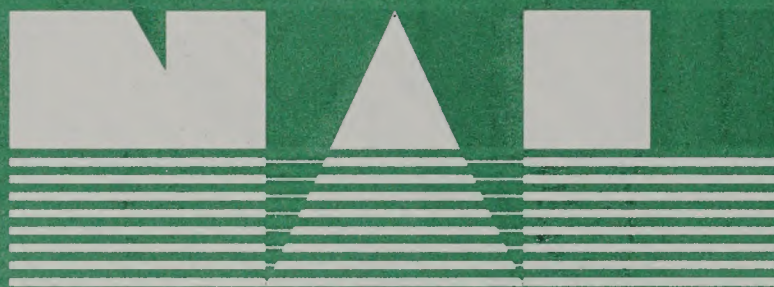
NASHVILLE, TENNESSEE



SUMMARY REPORT

April 25, 1997

**United States
Department of
Agriculture**



National Agricultural Library

Preface

This report summarizes presentations made during the National Economics and Related Social Sciences Meeting held in Nashville, Tennessee during March 24, 1997 - March 27, 1997. The report corresponds to the agenda's format:

Welcome and Interview

Topic I: Integrating Socio-economic Considerations into NRCS Programs

Topic II: Current and Emerging Initiatives

Topic III: The Tie That Binds

Topic IV: Shared Innovations, Initiatives and More

Topic V: Concurrent Interactive Workshops

Closing

The agenda and participants listing follow the preface. The report consists of written summaries provided by the presenters. Therefore, they are responsible for the content. As well, if a written summary was not provided, then we summarized the presentation notes of our distinguished recorders, Jan Whitcomb, Economist in Wisconsin and Pam Yost, Economist in West Virginia.

We extend our fondest appreciation to all who contributed to the completion of this summary report.

For additional copies or information regarding the presenters, contact the Resource Economics and Social Sciences Division at 202-720-2307.

National Economics and Related Social Sciences Meeting

Marriott Hotel Nashville, TN Airport

March 24-27, 1997

AGENDA

MONDAY March 24, 1997

Room Location - Salon D

2:00 pm - 6:00 pm Registration

TUESDAY March 25, 1997

Room Location - Salon D

Moderator - Michelle Beasley
Economist, TN

7:30 am - 7:45 am Registration

8:00 am Welcome to Nashville, TN & Southeast Region James Ford
State Conservationist
Dwight Holman
Regional Conservationist

8:30 am. Purpose & Overview of Meeting Activities Jerry Hammond
ICD Director
Peter Smith
Acting RESSD Director

9:00 am Who Are We (Ice Breaker)

10:00 am - 10:30 am Break

10:30 am **Topic I: Integrating Soci-Economic Considerations into NRCS Programs**
What is Expected Paul Johnson, *Chief*
Program Opportunities Before Us Deputy Chiefs
Gary Margheim *for the Dep. Chief of Science and Technology*
Larry Clark, *Dep. Chief for Programs*
Peter Smith *for the Dep. Chief of Soil Survey and Resource Assessment*

Noon - 1:00 pm

LUNCHEON (Location - Salons ABC)

"Financial Peace"

Speaker: Russ Carroll, The Lampo Group

Topic II: Current and Emerging Initiatives**Moderator - James Featherson**
Economist, TX

1:15 pm	FOCS & Economics Module	Howard Thomas, <i>State Resource Conservationist, UT</i> Phil Teague, <i>Technical Projects Manager, Ft. Collins</i>
2:15 pm - 2:30 pm	Break	
2:30 pm	Farm Bill - Big Picture & Economist's Role	John Stierna, <i>Economist</i> <i>Resource Economics & Social Sciences Division</i>
3:00 pm	CTA Team Charge	Dan Conrad, <i>Leader</i> <i>Conservation Operations Division</i>
3:15 pm - 3:45	Break	
3:45 pm	GLCI & Enterprise Diversification	Larry Butler, <i>Enterprise Diversification Specialist</i> <i>Grazing Lands Technology Institute</i>
4:15 pm	RECAP of the Day	

WEDNESDAY March 26, 1997**Room Location - Salon D****Topic III - The Tie That Binds****Moderator - Cheryl Newell**
Economist, MN

8:00 am	Social Sciences Institute	Frank Clearfield, <i>Director</i>
8:30 am	Watershed & Community Planning	Warren Lee, <i>Director</i> <i>Watersheds and Wetlands Division</i>
9:00 am	Socio-Economics: Outreach Opportunities	James Tatum, <i>Acting Dir.</i> <i>USDA Program Outreach Division</i>
9:30 am	Defining the Role of Economists	State Conservationists Panel Dawn Genes, NH William (Bill) Hunt, MN
9:45 am - 10:15 am	Break	

Topic IV: Shared Innovations, Initiatives, and More

10:15 am East Region Presentation

10:50 am Midwest Region Presentation

11:25 am Northern Plains Presentation

Noon - 1:00 pm **LUNCHEON (Location - Salon E)**

"Tennessee Agriculture: Marketing Initiatives"

Speaker: Commissioner Dan Wheeler

TN Dept. Of Agriculture

Moderator - Ron Hemmer
Economist, AZ

1:15 pm South Central Region Presentation

1:50 pm Southeast Regional Presentation

2:30 pm West Region Presentation

3:10 pm - 3:30 BREAK

3:30 pm Institutes Presentation Kevin Boyle, SSI
Dave Buland, NRRI

4:00 pm RECAP of the Day & Workshop Highlights

THURSDAY March 27, 1997

Topic V : Concurrent Interactive Workshops

8:00 - 8:45 <i>Location-Salon E</i>	Grazing Lands Application (GLA) Econ.	Ted Kuntz, OK Larry Butler, TX
9:00 - 9:45 <i>Location-Salon F</i>	Training Needs & Opportunities	Hal Gordon, OR
10:00 - 10:45 <i>Location-Salon G</i>	Communications	Lynn Knight, VT Jim Hosack, MO
11:00 - 11:45 <i>Location-Salon H</i>	Policy / Open Issues	Otto Doering, RESSD

Noon - 1:00 LUNCHEON (Location - Foyer)

“Anthropological Praxis in NRCS”

Speaker: Michael Johnson, Anthropologist
NRCS, Social Sciences Institute

Moderator - Aaron Hinkston
Economist, LA

Topic VI: What Lies Ahead...The Next Steps *Room Location - Salon E*

1:00 pm Summary Reports from Interactive Sessions

2:00 pm Close Out Jerry Hammond, ICD

NATIONAL ECONOMICS AND SOCIAL SCIENCE STRATEGY MEETING
ATTENDEES

<u>State/Location</u>	<u>Name</u>
Alabama	Gary Jones
Arizona Univ. of Ariz.	Ronald F. Hemmer Michael Johnson
Arkansas	Kevin Kinvig
California	Madelene Bruun
Colorado Ft Collins	Nyle Jordre Phil Teague
Delaware	Stephen Kemmerle
Florida	Grant Reddig
Georgia Regional Office	Cran Upshaw Dwight Holman
Hawaii	Gail Ichikawa
Illinois	Yolanda Rena White Jody Rendziak
Indiana	John Poenisch Robert Hummel
Iowa	Dennis Miller
Kansas	Duane Evans
Kentucky	Bill Waits
Louisiana	Aaron Hinkston George Townsley
Maryland	John Long
Michigan	W. Ronnie Clark
Minnesota	Cheryl Newell William Hunt
Mississippi	Glynda Clardy
Missouri	James Hosack

NATIONAL ECONOMICS AND SOCIAL SCIENCE STRATEGY MEETING
ATTENDEES

<u>State/Location</u>	<u>Name</u>
Nebraska	Keith Sheets
New Hampshire	Dawn Genes Hollie Umphrey
New Mexico	Ken Leiting
New York	Florence Swartz
North Carolina, Greensboro	Frank Clearfield Kim Berry
North Dakota	JoDean Nichols Dave Archer
Ohio	Alan Lauver
Oklahoma	James Wood Ted Kuntz LaNisha Vann
Oregon	Hal Gordon
Pennsylvania	Gail Deshong Brandt
South Carolina	Curtis Hobbs
Tennessee	James Ford Michelle Beasley Dan Wheeler (guest) Russ Carroll (guest)
Texas Grazing Lands Tech. Inst. Blackland Res. Center	James Featherston Larry Butler Dave Buland Jay Atwood
Utah	Larry Edmonds Howard Thomas
Vermont	Lynn Knight
Virginia	David Faulkner Letitia Toomer

NATIONAL ECONOMICS AND SOCIAL SCIENCE STRATEGY MEETING
ATTENDEES

<u>State/Location</u>	<u>Name</u>
Washington	June Grabemeyer
West Virginia	Pam Yost
Wisconsin Univ. of Wisc.	Jan Whitcomb Kevin Boyle
Wyoming	Edith Bennett
NHQ	Paul Johnson Gary Marghiem Larry Clark Jerry Hammond Warren Lee Marita Baker Otto Doering Doug Helms John Stierna Jerry Namken Peter Smith Liu Chuang Renna Young James Tatum Marc Safley Fen Hunt Clifford Doke Dan Conrad Jacqueline Davis Slay Wanda Ellicot Barbara Fesco Bengt "Skip" Hylng

WELCOME & OVERVIEW

- * P. Dwight Holman, Southeast Regional Conservationist**
- * Jerry Hammond, Director, International Programs Division**
- * Peter Smith, Director, Resource Economics & Social Sciences
Divison**

P. Dwight Holman, Southeast Regional Conservationist, NRCS

The following excerpts are from Dwight Holman's welcome and introductory comments:

- Issued a challenge to economists to “get out of the box” (group exercise)
- Economists must demonstrate the value they bring to the decision process by bringing concrete information and data to the internal NRCS decision process.
- Get involved in the business decisions of the agency
- Address more than onsite benefits - look at offsite benefits as well
- Economists need to do a better job selling their discipline as part of the conservation tool box

National Economics & Social Sciences Meeting
Purpose & Overview of Meeting Activities
Jerry Hammond, Director, IPD

Before I discuss the purpose and overview of the meeting, I would like us to show our appreciation to Michelle Beasley, Marita Baker and Renna Young who made the arrangements and developed the program for this meeting. Without their leadership and hard work, we would not be here today. My appreciation also goes to each of you for supporting the meeting.

On December 7, 1994, my journey began with you when the Chief asked that I take the leadership for the Resource Economics and Social Sciences Division. As you will recall, this is when our restructuring plan was announced for taking us from the old SCS to the new NRCS. At that time, the Chief charged me with “integrating economics and social sciences into NRCS.” The Chief did not tell me how to do this. He did, however, empower me to get the job done.

My initial goals to carry out the charge were to:

1. **Develop a framework for economic and social sciences directives.** Doug Lawrence and Ken Tootle initially assisted with this by analyzing the process utilized by our engineers.

2. **Publish supporting technical documents that were in draft form.** Doug Lawrence and others produced our first official handbook, Resource Economics Handbook for Water Quality. Dave Langemeier took the leadership for revising the draft handbook for Water Resource Economics and Larry Edmonds took the lead for Conservation Economics. Renna Young took on the responsibility for the Water Resources Handbook when Dave took early retirement. As part of the handbook series, we have asked Tish Toomer to work with a former NRCS economist to begin to develop a handbook for the economics of GIS. I am hopeful that these and other handbooks will eventually be entered into our directives' system.

3. **Develop a network for economists and social scientists.** Jim Hosack and Lynn Knight developed ECONNECT, a system that far surpassed my vision. In addition, Lynn developed a paper on “Enhancing NRCS Economics Through the Internet,” that we shared with the Regional Conservationists. Also, Kevin Boyle and Renna Young are to be commended for developing home pages for economics.

4. **Rebuild the relationship with the Economic Research Service (ERS).** While we have been committed to developing a better working relationship with the ERS economists from NHQ, it behooves all of us to focus on this effort.

5. Finalize the Economics Strategic Plan that was started during the last national workshop. Kevin Boyle led a team of economists that developed the plan. It is a great guidance document that we all need to understand and support. The course of action we have outlined in the document will need to be adjusted as we gain additional information and experience.

During this same time, we asked Howard Thomas to take responsibility for integrating economics into FOCS. Ted Kuntz took the lead for developing a Personnel Directory of Economists, Social Scientists and Sociology Coordinators. Not only did he develop it, but he put it in the NRCS Homepage. Ted also began the process of integrating economics into GLA. Hal Gordon assumed the national responsibility for the economics training course, putting together an advisory group that revised the course.

Additionally, we received a lot of help for the Farm Bill provisions, with John Long and Doug Lawrence developing the cost benefit analysis for the wetland reserve program. Because John Long did such a great job, we called on him again to assist with the cost benefit analysis for the Farmland Protection Program. John Stierna developed the initial cost benefit analysis for the Environmental Quality Incentives Program. Liu Chuang and Jerry Namken revised it so that the proposed EQIP rule could be published in the Federal Register. We called on several of you to assist Jerry Namken in developing the final analysis.

We developed the first-ever Business Plan for the RESS Division that supported the NRCS Business Plan, NRCS Strategic Plan, Natural Resources and Environment Under Secretary goals, and the Economics Strategic Plan. We also revised the mission of the Division "To help people use social science knowledge in sustaining the Nation's Natural Resources."

Several of you provided me valuable comments for the issue paper outlining "the role of economics in environmental decision making" that was developed in response to the NHQ restructuring review. From there, many of you provided valuable comments and advice for the draft economics policy statement that will be entered into the General Manual very soon. A near final draft of the policy statement is available for each of you to make any last comments you desire.

What does all of this have to do with the purpose and overview of the meeting? I felt this would provide a background for the national meeting and show why we supported having it.

I feel the purpose of the meeting is to have fun, renew old acquaintances, make new friends and take away new ideas that will help each of us "integrate economics and social sciences into NRCS." You are leaders and leadership is the key to making this happen.

In an article I read some time ago in The Washington Post, it stated the skills and abilities that I feel leaders need:

1. **Inspire a shared vision.** The most fundamental responsibility of a leader is to describe what and where you want to be at some point in the future. A vision is needed to provide a sense of direction that will be a change from the current situation.

2. **Empower others.** Let other members of the group participate in making things happen.

3. **Be open minded.** Listen to other's ideas and opinions and be willing to change your own.

4. **Have a bias for action.** How do you face challenging situations? You need to do something about them.

5. **Be compassionate and ethical.** Be aware and care about other's feelings. Do the right thing whether it is popular or not. Leaders are confident and lead by example.

You can judge the Chief or me using this simple criterion. My charge to each of you is to be leaders in your chosen disciplines. What you do will make a difference in NRCS.

Thank you very much for providing me the valuable advice, guidance, and support during the past two years. I could not have done my job without it. Please provide the same assistance to Peter Smith.

THE NASHVILLE ECONOMISTS AND SOCIAL SCIENCES MEETING*

Good morning! It is my pleasure to be here today. I have been in the Acting Director of Resource Economics and Social Sciences for a little more than a week. I find myself in an interesting position to work with you and to effect change. I am excited and enthusiastic about my new assignment, and am proud to be part of your family. I look forward to working with you as we continue to expand the contributions that the economics and social sciences make to NRCS and to its customers.

I want to take this opportunity to thank Jerry Hammond for the excellent leadership he has provided over the past couple of years. He made major contributions to strengthening economics and social sciences disciplines in NRCS. We have a recreation and tourism policy and a national resource economics handbook on water quality, and we are very close to having an economics policy. Our disciplines are gaining more visibility and importance in the Agency, in the USDA, and in the Federal Government as a whole.

I want to focus on two subjects today. First, how we can work together on some principles and future directions to help economics and social sciences make an even greater contribution to NRCS. Second, what I see as some concrete breakthrough opportunities for our disciplines today in high-priority agency activities.

Principles And Future Directions

Let's first talk about some principles and future directions. Communications are a fundamental principle and the means through which we can help set our future directions and attain our goals. A major purpose of this meeting is to exchange ideas, as we all work together to set the strategic direction for economics and social sciences in NRCS over the next three to five years. We all need to be proactive listeners to maximize our benefits from this meeting.

To help collect and document your ideas for the future direction, we have prepared a "feedback" form, which you will find on the resource table. Please take the time to complete this form and return it to Marita Baker near the end of the meeting. The results will help us all understand what is working, what needs improvement, and why. Working together, we will define what needs to be done and some principles to get the jobs completed.

*Remarks by Peter F. Smith, Acting Director, Resource Economics and Social Sciences Division, at the Nashville Economists Social Sciences Meeting, March 25, 1997.

We have an excellent start toward a successful future in the November 1995 document, "Economics In The Natural Resources Conservation Service: A Performance Plan For Managers And Economists." It appears to be an excellent and ambitious piece of work. I believe that we all would benefit from an update and reality check by a small team. Then, we need to move forward to continue to implement the fine ideas in this report.

Part of this update will need to involve the charges given to me by the Chief when he gave me this assignment. It is significant that the Chief took the time to think about the economics and social sciences and to provide guidance. Much of the guidance is either explicit or implicit in the "performance plan" document. Here are the Chief's charges, which are the charges to all of us. They help form a vision for economics and social sciences.

First, work on a national strategy to integrate the work of economists with the contributions of other scientific disciplines to support the agency.

Second, articulate the role economic analyses should play in support of the NRCS mission.

Third, develop a coordinated and integrated research and development agenda for NRCS economists at all levels.

Fourth, place special emphasis on economic valuation of NRCS contributions to resource and environmental quality.

Fifth, quantify the cost of providing technical and financial assistance to customers, and

Sixth, recommend strategies to integrate NRCS economic analysis through closer partnerships with other USDA, federal and state agencies, and other institutions.

I am a great believer in institutional memory and in avoiding rediscovery of the wheel. I am sure that some progress has already been made in addressing these charges, and I do not want to see us start over on jobs that are already underway.

We need to communicate and cooperate if we are to pursue the future, in the most efficient and effective ways to serve our customers better. Customers include those of us in this room, farmers, ranchers, communities, the public, NRCS, and other USDA officials.

I believe in open communications and welcome your comments and guidance at any time. Let's commit to helping each other succeed in maximizing the contributions of economics and social sciences in reaching NRCS's objectives.

Breakthrough Opportunities

In many ways, we are at a breakthrough position to increase our contributions to conservation. Let me talk about four opportunities--the Government Performance and Results Act Strategic Plan, The Geography Of Hope, Locally Led Conservation, and the conservation provisions of the new Farm Bill. All of these are, of course, interrelated. They represent a package of objectives and mean to achieve objectives. All require that we make progress on the charges given to us by the Chief.

--NRCS Strategic Plan

Let's talk about the NRCS's Government Performance And Results Act Strategic Plan. It is now in place and has two general goals:

First, "individuals and their neighbors working together as effective and willing stewards of the natural resources on their property and in their communities." Lets call this the "people" goal. And

Second, "a healthy and productive land that sustains food and fiber production, sustains functioning watersheds and natural systems, enhances the environment, and improves urban and rural landscapes." Lets call this the "land" goal.

Achieving the first goal, the people goal, is essentially 100 percent dependent on economics and social sciences. Strategic objectives to meet the goal include a strong, grassroots conservation partnership across the U.S.; a diverse and well-served customer base across the U.S.; and private landowners and communities with the science-based information and technologies, which landowners and communities need to conserve natural resources.

Now, here is an interesting bit of information. I was interviewed last week by a team, which is conducting a policy review. The team is trying to determine if there are policies in place that contribute to, or will serve as, barriers to the achievement of our Strategic objectives and goals. The team rightly asked about economics and social sciences area policies as potential contributors or barriers to the achievement of the "people goal." However, they had not even considered the role of economics and social sciences in reaching the "land goal." I explained that the only way results on the land occur are through people. Understanding people, what motivates them, and why they do or do not change behaviors are fundamental to attaining the "land goal."

One of our challenges is to help our leadership be successful in meeting our GPRA Strategic Plan objectives--by better integrating economics and social sciences into our policies and programs. In many ways, the exchange of ideas at this meeting will help lay the groundwork for addressing both "people" and "land" goals.

--A Geography Of Hope

This is a major policy document. It stresses the importance of conservation on private lands in meeting the Nation's natural resource and environmental objectives. There is an effort underway to explicitly link some of the findings from the Geography Of Hope with the Strategic Plan goals and objectives in the form of fact sheets.

How does the Geography Of Hope relate to economics and social sciences?

In working with our Chief over the past few years, I have heard him emphasize the benefits of agriculture beyond food and fiber production--the non-commodity benefits.

In fact, we had some negotiations with the National Academy of Sciences, Board on Agriculture, to develop a study to help identify and quantify them. They wanted too much money and too much time to conduct such a study.

To continue dialog on this subject, NRCS helped sponsor the Organization for Economic Cooperation and Development Workshop on the Environmental Benefits Of A Sustainable Agriculture last October in Helsinki.

Our task is to work with biologists, engineers, and others to help identify and to measure the offsite and onsite benefits and costs of agriculture. We need to be vigilant in this task and continue to bring new data and information to the table. For some periods of our history as an agency, it was not popular to discuss items such as landscape values of agriculture. That is no longer the case. It's up to us, as economists and social scientists, to pursue these and other non-commodity benefits. Your help is needed in identifying what we know and setting a research agenda for what we do not know.

--Locally Led Conservation

This initiative describes "how" we, as a Nation, will identify conservation priorities and accomplish them. Locally led conservation envisions a broad base of community involvement and the community working with a wide range of public and private groups. NRCS is seen as one of many suppliers of technical information and as a catalyst and facilitator of the process. Facilitation skills and conflict resolution skills are the domain of the social sciences. This will be an important area of work for us into the future.

A key challenge is to quickly integrate the findings of the Civil Rights Action Team into locally led planning. The findings found significant problems in program delivery to minority and limited resource farmers. We need to use social sciences to make locally led conservation inclusive.

Economics will play a strong role in the conservation options chosen at the local level. We need to work with other disciplines and organizations to make sure that there are economically viable options available to all customer groups.

--1996 Farm Bill

First, some perspective. The 1996 Farm Bill programs are one of several means that can be used to achieve locally led conservation. The guidance for locally led conservation calls for the use of other Federal, State, local, and private programs as appropriate.

The natural tendency is to think internally, so we have focused a great deal of attention on EQIP and other NRCS programs. One of the new directions in the Farm Bill is to maximize environmental benefits per dollar spent. This sounds very much like the economics and social sciences' direction to me. This direction opens up the whole problem of measuring environmental benefits that I mentioned above.

Working with other disciplines, we need to improve our science in this area. We need to be able to do a better job advising local groups, district, State, regional, and national decision makers to help them make better choices.

Summary and conclusions

Let me conclude by saying that I am enthusiastic about our future. We have a number of assignments to pursue in the form of principles--most of which relate to better integrating economics and social sciences into the NRCS culture. In addition, we have the opportunity to demonstrate how economics and social sciences can have a major impact on key conservation initiatives--implementation of the Strategic Plan--the Geography Of Hope, Locally Led Conservation, and implementation of the 1996 Farm Bill.

Ladies and gentlemen, we are at a historical turning point in American agriculture and conservation. Economists and social scientists have a large role to play in determining whether the path we are on toward free markets and voluntary approaches to solving conservation problems is successful. Let's work together to help our customers succeed.

Thank you for your attention. I would be happy to answer your questions.

TOPIC I

INTEGRATING SOCI-ECONOMIC CONSIDERATIONS INTO NRCS PROGRAMS

- * Paul Johnson, Chief, NRCS**
- * Gary Marghiem, Associate Chief, NRCS**
- * Larry Clark, Deputy Chief for Programs, NRCS**

Paul Johnson, Chief, NRCS

The following excerpts are from Chief Johnson's presentation at the meeting:

- NRCS people are a national treasure. We're part of a great movement and partnership. The land is healthier because of us.
- We need to build on what came before us. Our future is in working with people to put conservation on the land --to do this, we need to understand people
- We need to work with landowners on an individual basis rather than using a broad paint brush. We have tried to lay out what the partnership between NRCS and the landowners are in the Geography of Hope document. The Geography of Hope has been accepted by a wide range of people--its theme is that you can't lock up nature in sanctuaries--the working landscape makes the difference. We need to get people who work with land to respect it and to increase productivity
- Long term, the working landscape of the country will determine whether we will have a healthy environment. We need to get landowners to look in a broader sense. We need to do this while maintaining productivity of their farms, and other benefits that come off the land (wildlife, recreation, aesthetics). It is partly our job as social scientists to ask these questions.
- We need to understand how land users think, across the spectrum from industrial farmers to limited resource farmers. Our challenge is to justify basic conservation programs.
- The future of support for agriculture will come from nonmarket benefits. We will need to articulate this in order to continue support. We may have an opportunity to provide a stewardship program. How can we pay for good stewardship?
- The nation and consumers don't understand what the CRP program is about--we're buying environmental benefits, not transferring income--our job is to articulate the benefits and what we need to pay to obtain them--what are we getting for our conservation expenditures.
- EQIP is in the market to purchase environmental benefits from landowners for the public. Economics is key for EQIP and locally led conservation--help is needed with resource status and trends and in setting goals. Locally led conservation is how we help local individuals identify goals and then achieve them.
- Let's move from market transition payment to stewardship payments. Let's move forward with the inventory easements and debt write down for conservation--\$13 billion in debt has been written down--only a few wetlands easements have been obtained--this is a lost opportunity--what benefits have we foregone?
- Key challenge--economists must articulate values as well as numbers

Gary Margheim, Acting Associate Chief, NRCS

The following excerpts summarize Gary Margheim's comments that were given on behalf of the Deputy Chief for Science and Technology:

What opportunities are available for economists and social scientists?

1. Continue to build on sound science and technical expertise. Acquire a diversity of technical expertise. Diverse expertise is very important. Stay current, expand horizons and set high goals.
2. Be flexible and innovative-"if it ain't broke, break it". How do we become more cost efficient in delivering assistance? Outreach to other groups. How do we conduct an outreach effort to get to all groups? Work towards economic value of conservation. How do we put an economic value on conservation?
3. We need to be effective communicators. We have a story to tell, and we need to tell it honestly.
4. Be a team player.
5. Keep an eye on the future and developing technologies. We need to know where we are going before we can get there.

We need to maintain high standards of technical excellence--we set the public's perception of trust in government.

Larry Clark, Deputy Chief for Programs, NRCS

The following excerpts are from Larry Clark's presentation at the National Economics and Related Social Sciences Meeting in Nashville, Tennessee.

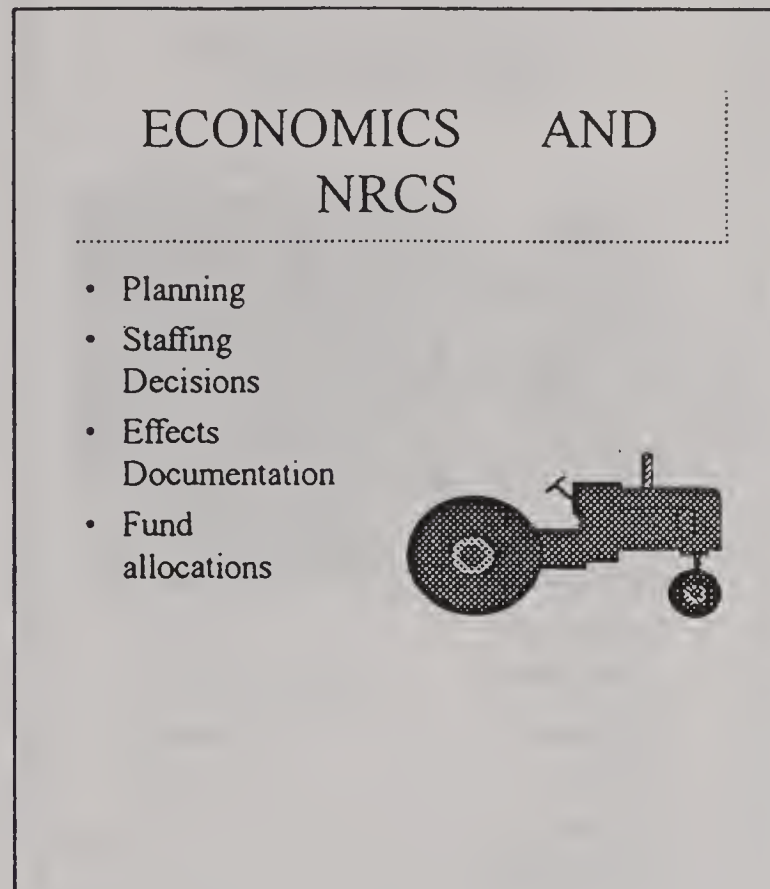
- The future is shaped by history. Our history as economists and social scientists is important. There is a difficult relationship between economists and “Hard” scientists - Relationship has shifted now to emphasis on the “Soft” social sciences and behavior. The future of our agency demands that we integrate socio-economics into all programs
- Look at yourself and think about what you might personally do to help others--life is about giving, not getting
- Issues to deal with--a community of global thinkers; systems thinkers, not stovepipe thinking; equity; benefits and costs; locally led conservation; outreach.
- We need to become a community of global thinkers. We need to read more. We should revitalize systems thinking-incrementalization couldn't solve the problems in conservation that people are facing. We need to address equity issues and a sense of fair play. What are the benefits of the services we provide? We need to work with local groups.
- Use agency documents like the “Geography of Hope” as guidance
- Play fair and use good conscious
- Locally led conservation is very important - start at square 1- don't assume they know anything about us

TOPIC II

CURRENT AND EMERGING INITIATIVES

- * Howard Thomas, State Resource Conservationist, UT
Phil Teague, Projects Manager, Ft. Collins, CO**
- * John Stierna, Economist, Resource Econ. & Social Sciences**
- * Dan Conrad, Team Leader, Conservation Operations Division**
- * Larry Butler, Enterprise Diversification Specialist, Grazing
Lands Technology Institute**

Narrative and slide presentation on FOCS and the Economics Module. Howard and Phil Teague jointly presented this information.



Economics plays an important role in all conservation planning activities of the NRCS.

Marketing practices of the agency can be enhanced by the addition of economics to thunder books

Reasonable alternatives are more easily recognized with the use of economic analysis.

Economics can add important information for allocation of staffing resources in each state.

CED in the planning process provides a unique opportunity to document the effects of practices

With the advent of the 1996 farm bill 'effects documentation' is the most important activity of the late nineties.

Fund allocations to projects under each of the new farm bill programs can be justified and supported with economic analysis.

PLANNING

- Resource assessment
- Problem Identification
- Identify Alternatives
- Evaluate alternatives
- Select best alternatives
- Document effects
- implement Alternative



The planning process provides the framework for applying economic thought to the agencies activities. We as economists must be aware of the venues into which our efforts will add value to information available for managment. Again it is up to us to recognize opportunities and not wait for the managers to ask for our input.

Successful marketing of economics at the field office level today will pay huge didivends in the future. We can work our way into the decision process at the state level in a marginal way today. However it is the work with the field office where the future leaders of the agency can use our inputs that will buy us long term acceptance in the agency.

Economics must be included in the planning process from the beginning in order to ensure complete and appropriate collection of data and resource information.

The emphasis on measurement of effects should serve to get everyone concerned about economics and resource data adequacy.

TOOL DEVELOPMENT

- Ideas from experience
- Better Mousetrap ???
- Workload adjustments
- Automation
- Documentation
- Training
- Expand economics into planning activities



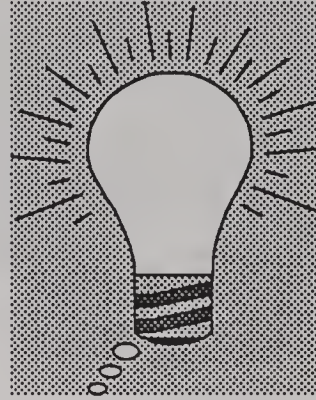
How do we get new tools developed and old ones updated?? Those of you who are in the trenches doing the day to day grind will periodically have great ideas about how a tool might be improved or how you have found a task that could be automated and save yourselves and others a lot of time.

When ideas come to you for the creation of a better “mousetrap” take action to get your idea into the process. Too often we think if we have thought of this everyone else must already know it. Please look for opportunities to improve the analytical as well as the marketing tools for economics in NRCS.

Ideas for expanding economics in the planning process should be shared. In this session we will get some ideas about how to use economics to further conservation. When you go home you will undoubtedly come up with some new ideas of your own. Share them with the consortium leader in your region and then determine whether or not the idea has merit for automation, tool development or tool improvement.

PROCESS

- New Idea
- Modification
- You work out details
- Develop working model
- Submit to FOCS Economic Sponsor
- Submit To BAAG

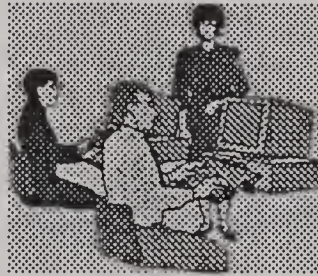


The process for getting new ideas implemented in FOCS is for you to work out the details of the improvement that you want to make then submit the proposal to the FOCS economic sponsor for consideration.

The FOCS economic sponsor will submit your idea to the Economics Business Area Analysis Group (BAAG) for their input and consideration.

PROCESS

- BAAG Review for
 - Need
 - Policy
 - Priority within Discipline
- Recommend to FOCS Sponsor and IRB



Once the BAAG has made a review and finding they will make their recommendation to the FOCS sponsor for further action.

With a positive recommendation from the BAAG the sponsor will work with Fort Collins staff to submit a proposal to the IRB for priority ranking and funding.

PROCESS

- IRB Decision to Proceed
- Send to FOCS Team at Fort Collins
- Assign Staff
- Establish Design Team
- Design tool

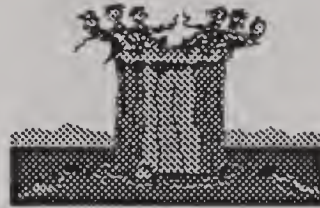


Once the IRB has allotted funds and established a priority for the process to move forward, the FOCS team at Fort Collins will assign staff to lead the project, establish a design team and begin the process of designing the tool for incorporation into FOCS.

It is important to remember that this process only applies to those processes that need to be in FOCS. If you develop a stand alone tool that can be used by other economists and field office personnel in your state you have the technical responsibility to ensure compliance with agency policy. There is no formal process in the process we are describing to make sure your tool is appropriate for your intended use.

PROCESS

- Fort Collins Works Magic on tool
- Design Team Review
- FOCS Sponsor and tool Technical Leader review
- BAAG Review
- Beta Test in field offices

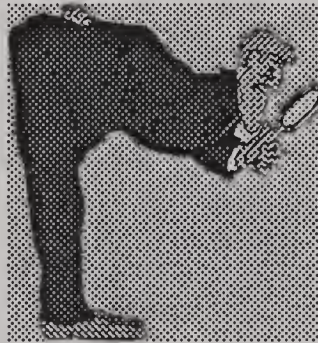


Fort Collins does their thing, The design team reviews the product and tests it to see if it meets the design criteria. The FOCS sponsor and technical leader, probably you if you were the developer of the idea, review the tool for technical adequacy, then send it on to the BAAG for their concurrence and further review as they see fit.

When the BAAG has placed their stamp of approval on the tool it will be Beta tested by selected field offices or state economists as is appropriate for the tool being developed.

DISCIPLINE APPROVAL

- Technical leader and Design Team Approval
- FOCS Economic Tools Sponsor
- Referral to BAAG for Final Discipline Approval



when the Beta test is concluded the findings are reported to the technical leader and the FOCS sponsor who work with the project manager at ITC, Ft. Collins to prepare the final tool for release.

Once the final is developed the BAAG and FOCS sponsor recommend it for release.

FOCS IMPLEMENTATION

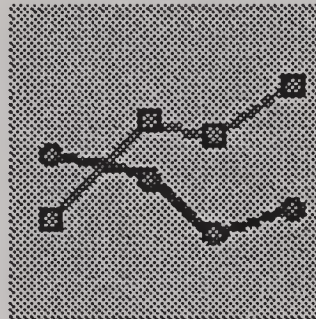
- Fort Collins
Magic again
- Scheduled
with FOCS
Update or
new release.



Fort Collins performs it's final rites and schedules the release for the next FOCS update or new release.

COST COMPARISON TOOL

- Just released
- Provides mechanism for field office personnel to quickly evaluate alternatives.

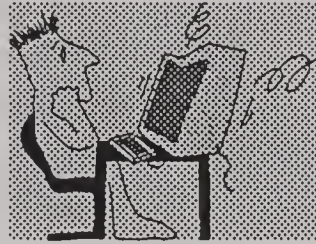


The cost comparison tool will provide field offices with the ability to improve marketing of conservation practices and systems by allowing side by side comparisons of alternatives with benchmark conditions.

This tool was just released as part of PASIS and is available to use now. As you use it keep in mind that we need to be aware of ways to improve all of our tools so don't be basful about making suggestions back through the system.

FUTURE ECONOMICS TOOL

- Uses off the shelf software.
- Minimum of NRCS programming required
- Planning tool for field office and cooperators to do planning
- Being tested in field offices by design team



In our effort to make the information rich agency more accessible to our clients the future economics tool is designed to use off the shelf software. It provides a portable tool that can be taken to the field and used on the hood of a pick up or at the kitchen table to accomplish planning with the cooperator.

Eventually we hope to have the ability to down load data from the FOCS files to a laptop or disc and make our resource data available directly to the farmer or a consultant to assist the cooperator with preparation of conservation and production plans as they are needed.

This model is currently being tested in field offices in to field offices.

PHIL TEAGUE

- Economic tools
Projects
Manager Ft.
Collins, ITC
- Keeps everyone
organized and
productive
- Answer man for
all of your
questions.



Phil Teague is the project manager for most of the economics tools that will pass through Fort Collins.

He is here today to give you the inside scoop on processes at fort Collins and how they relate to your work.

As you can see the work load at Fort Collins you will understand why it appears Phil is n over his head.

My parting shot is to remind you that the future of economics in the NRCS rests squarely upon your shoulders. Train the field now as to what you can do then when these folks have moved in to positions of power and authority they will know what you can do for the and the agency will have the benefit of economic thinking in their management decisions.

It has been a pleasure being here. Use this week to glean as much information from your counterarts as possible so you will know who to call when you get back home.

**Development Cycle of An Approved Software Project
Conservation Practice Cost Comparison (CPCC)Tool**

Establish Team

- Sponsor Representative - provides overall guidance, final decisions regarding design of all aspects of the project
- Project Manager - oversees the development team and coordinates with the Sponsor Representative and the Design Team
- Design Team - provides recommendations for the requirements and design of the project including format of screens, reports, and user documentation
 - Consists of field office personnel and discipline specialists and is selected by the sponsor representative from nominations from regional offices (CPCC had 2 Ag Economists; 2 District Conservationists, and 2 Soil Conservationists from AL, CO, KS, OK, NM, and TN)
 - Commitment to be available for certain amount of travel to ITC and to participate in reviews and testing over the development cycle
- Development Team - analysts, programmers, and documentation specialists who work on the project, generally a mix of NRCS and contractor personnel

Set Scope and Schedule

- Joint Requirements Planning Work Session - team participants meet to establish written requirements and schedule milestones including tentative date for release.
- Requirements Statement - establish what items are essential and what are desired as well as the time frame for delivering them.

Develop Design

- Establish format for data input and output by elaborating on Requirements Statement and adding more detail
- Provide business rules for data interaction and calculations
- Establish format of user documentation (CPCC had Quick Task Guides, Change Pages to Conservation Plans User's Guide, and Release Notes section)

Construction

- Development team codes the project according to the design
- Generally requires a teleconference or two with design team and sponsor representative for guidance on details not specifically covered in the design
- Milestone project is an operations version for initial testing
- Construction becomes an iterative process bases on testing
- Draft user documentation is also developed during this period

Testing

- Unit testing done by the development team at ITC to identify and resolve operations errors
- Alpha testing by sponsor representative to verify that requirements are met
- Live system (beta) testing by design team and possibly others off-site to identify problems while operating against a real database and to provide suggestions for improving user documentation
- Regression testing by development team to insure that any fixes or other changes perform as intended and do not introduce new errors

Certification and Release

- Project is certified by ITC and approved for release by the sponsor
- Formally released as a installation package with supporting documentation
- May be packaged with other projects in the same release window such as FOCD2

Support and Maintenance

- Help Desk available to answer calls and will refer to Project Manager in cases they can't resolve
- Errors in operation corrected as soon as possible (CPCC had a patch release to correct report display error)
- Enhancements can be suggested through Help Desk and will be sent to the sponsor for establishing priority and obtaining funding to implement

Summary of slides and Basic Economic Tool Recommendations Follow.....

CPCC Team

- Sponsor Rep. - Howard Thomas
- Project Mgr. - Phil Teague
- Design Team - Russ Neis, Ag Econ. CO
Bill Hughes, Ag. Econ AL
John Allen, District Con. NM
Cathee Wilson District Con. OK
Tom Roth, Soil Con. KS
Kathy Daugherty, Soil Con. TN
- Development Team - analyst, programmer, tester, documentation writer

Design Details

- 1. Due to its close association with the Conservation Plans module we propose that the Conservation Practice Cost Comparison be part of the PASIS Required installation package. This would be consistent with the way the CED Worksheet is currently handled in FOCS.
- 2. Tying costs to practice versions limits the ability to integrate with contracting cost lists which are on a component basis. This means there may be some duplicate entry of cost information. Are you comfortable with that? Yes but team should explore ways to better integrate in future versions.
- 3. For existing systems with planned practices default practice cost values will be automatically loaded when a user generates a Practice Cost Comparison report or accesses the practice cost editing screen. This means if default values are loaded for practice versions, a user can generate the report without any further data entry.

Set Scope and Schedule

- Requirements for Basic Tool (CPCC) to be released in one year
- Suggestions for "Beyond Basic Tool" to be released in 2 to 3 years

Construction

- ITC Development Team coding based on design
- Teleconference contact with Design Team & Sponsor Rep to resolve issues
- Operational Version for testing
- Regression builds as testing proceeds

Testing

- Initial Testing by Development Team
- Alpha Testing by Sponsor Rep
- Beta Testing by Design Team
- Regression Testing

Certification & Release

- Certification by ITC
- Approval by Sponsor
- Release as part of FOCD2
- Release Notes for Field & FOCS Coord
- Memo from Director to Economists

Support & Maintenance

- Help Desk first line of support
- Escalate unresolved issues to Project Mgr.
- Any errors corrected soon as possible e.g. Patch Release
- Enhancements suggested to Help Desk are forwarded to Sponsor

BASIC ECONOMIC TOOL RECOMMENDATIONS

Vision: A simple approach which provides some economic information that is useful to clients and brings the level of NRCS planning up a notch. Such an approach should be largely transparent to the NRCS planner utilizing existing FOCS information and minimizing the need for additional user input.

Features: The group generally supports the approach in the prototype basic tool with the summary side by side comparison of two alternatives and also feel it is vital to display the “by field” cost breakdown as producers are asking more questions about practice costs. The following are recommended features:

- 1) Stay away from requiring user to select components to calculate a practice cost. Suggest tying the cost data to practice version i.e. practice code and standard practice narrative.
- 2) In the most straightforward case the user could generate the Detailed Cost Estimates Report with no further input after practices have been scheduled for a system but there also is a need for an option to view and edit cost estimates before printing (see #3).
- 3) Prefer a separate screen accessible from the Practice Schedule screen that displays calculated total cost and editable fields for per unit cost, life, O&M, and cost share for all planned practices. If data is changed include option to change it for all instances of that practice version in the system.
- 4) Consider having the installation cost, O&M, and estimated life be defaults like units per acre currently is on standard practice narrative. These values would be used to calculate the total cost that is initially displayed on the screen mentioned above where they can be edited and then saved with the system.
- 5) Emphasize “keeping it simple” for economic calculations. Stay with straight amortization of installation costs without going into discounting of costs that occur over a period of years.
- 6) Don’t ask field personnel to be concerned with what’s involved with cost calculation but state the basic considerations in a concise footnote as well as display pertinent data such as interest rate, expected life, and O&M on the report.
- 7) Would like to have estimated costs associated with all practices in an alternative including management practices and the maintenance of previously applied practices (see #11).
- 8) Cost share should not have a default value but should have 0.0 that can be manually edited with an option to include for all instances of a practice version when it is changed. As a lower priority investigate tying a default cost share rate to funding source.
- 9) Store interest rate in codes and values where it be could be changed but only infrequently.

Outline/Notes

1996 Farm Bill and the Role for NRCS Economists¹

Part I: THE FARM BILL

Overview of Farm Bill Themes:

- USDA programs structured to minimize market distortions and allow farmers almost total flexibility to respond to market factors in decision making.
- Minimize governmental intervention and make more farmer friendly (although AMTA is major, EQIP, WRP, CFO, and TA also are applicable)
- Revise/refine existing highly erodible land and wetland conservation requirements in the 1985 Food Security Act
- Replace old cost sharing programs with EQIP as a new “consolidated and streamlined” program such that it will maximize environmental benefits per dollar expended
- Refocus CRP to be for environmental purposes rather than commodity supply control
- Use of CCC resources for program funding
- Use participatory process to extent possible
- “Fairness” for livestock producers
- Many special cases/niche areas

Programs, Content, and Significant Issues:

Introduction

Blue Book, Policy Analysis in form of Side by Side, Final Law

Overview, Summary, and Digest -- Handouts

Information sources for Program Components -- Handouts (Use of Internet)

Definitive Information is the FSA Manual (now have CD ROM, network)

Issue papers were used for decisions by the Secretary, Under Secretary, and Chief

Conservation Reserve Program

FSA Program (note on legislative provisions)

NRCS concurrence

Changes

- Entended CRP (Approps language also blocked extension of contracts)
- Size (not 10-15, but 36.4) (ceiling rather than doorway)
- Environmentally sensitive lands
- Termination options for lands other than fragile/environmentally beneficial land
- Maximize environmental benefits per dollar expended
- Insure payments are commensurate with the agricultural use value of the land that is retired. (Not total value, but value associated with soil productivity adjusted cash rents for agricultural use) [Other issue: CRP affects on rents]
- Priority areas OK but Congress said all or none in legislative language

Effects:

- Captured baseline \$

¹ For presentation by John H. Stierna, Senior Economist, RESS Division, NRCS, Washington, DC at the NRCS National Economist Meeting on March 25 , 1997 in Nashville, TN

- Redirection of program away from supply control
- Focus on environmental benefits
- Potential for regional shifts
- Lot of discretion for Secretary

Significant Issues:

- Provides a major opportunity for conservation, yet not suitable for all lands
- Is key for FSA future, particularly due to AMTA
- Workload and reimbursement
- Avoidance of contract extension
- Interest groups (almost all entities)
- EBI scoring itself (Nordstrom is the czar, but need for improvements *after* this signup)
- EBI threshold team
- Attention by OMB and Congress almost to micromanagement.

Environmental Quality Incentives Program

NRCS Program

FSA Concurrence

Changes:

- New program to replace and consolidate
- Focus on really addressing environmental goals
- Use of priority areas
- Locally led process (more implicit than explicit in legislation)
- Cost share *and* incentive payments
- Technical Assistance
- Educational Assistance
- Long term contracts (5-10 yrs)
- Requires a plan
- Offer selection process
- Not less than 50 % for livestock
- Payment limits of \$10,000 per year and \$50,000 over contract period
- Must allot \$200 million
- Funded by CCC

Effects:

- New program, different from ACP and the other prior programs
- Relatively stable funding
- Priority areas not only focused on problems but where problems can be solved
- Priority concerns
- Cost effectiveness, max. EB, leveraging
- Participatory process (e.g. locally led conservation)
- Accountability

Significant issues:

- EQIP funding allocations to States
- Improvements to the resource needs criteria or elements
- Performance based funding
- EQIP evaluation
- Large livestock definition guidance

- Proposals for next year
- Other

Conservation Farm Option

Roles:

- Joint lead at present time
- Legislative Language
- Future

Changes:

- New program
- Limited to AMTA participants
- Pilot to achieve conservation

Effects:

- Explore the future of green payments

Significant Issues:

- Can it work?
- It will involve significant technology
- Would like to see authority for Secretary to allow waiver of AMTA requirement *for targeted groups under existing legislation.*

Other Programs (only brief reference--see FSA manual on changes)

Wildlife Habitat Incentives Program

Wetlands Conservation

Highly Erodible Land Conservation

Wetland Reserve Program

Farmland Protection Program

Grazing Lands

Flood Risk Reduction (FSA has program lead)

Other issues of concern (now and in the future):

State Technical Committees

Technical Assistance from others (non-NRCS)

Natural Resources Conservation Foundation

Other items of interest

Use of CCC funds and time keeping

Locally led conservaion

Buffer Initiative

What this says is that USDA and NRCS have a suite of conservation programs that can be used to address resource problems and opporutnities, probably the best mix that has existed in the history of the agency.

Why? Programs tailored to emphasize:

- Priority areas and priority resource concerns
- Flexible cost sharing under contracts (similar to LTA's)
- Both cost sharing of sturctural measures and incentives for management measures.

- Long term retirement for environmentally sensitive lands (CRP and WRP)
- Explicit direction to maximize environmental benefits per dollar expended.
- Locally led conservation process (Private landusers are *not* disinterested. They want it to work, make sense, and be fair.)
- Less market distortions from commodity programs
- Commodity support through AMTA still requires compliance with HEL and wetlands conservation requirements

All this on conservation programs and issues in the Farm Bill. You might ask, so what? What is my role? Let us focus for a bit on the role that economists *can* play to help achieve the conservation goals in 1996 Farm Bill.

Part II: ROLE FOR ECONOMISTS

Maximize Environmental Benefits per Dollar Expended

Legislative requirement. Real sense of achievement in that Congress acknowledges not only the emphasis on environmental quality, but the concept that we want to get the biggest environmental bang for the buck.

Desirable goal for public policy, particularly since the other legislative mandate of CCC funding and the requirement for EQIP funding at about \$200 million per year. Without this focus, the programs could well fail to deliver outputs acceptable to the public or the other institutions that will be looking at program achievements.

Way it is being used for conservation is to specify it as a major program criteria. It is not laid out with a single number as an absolute standard, as has been the case for traditional cost benefit analysis where the ratio is to exceed "one".

Issues for Economists:

Economists can be helpful to the state resource conservationist or the state conservationist in determining the criteria that could be used in guiding the program for the state.

Economists can help develop proposals for priority areas that reflect not only areas of need, but also areas where it is possible to address the need in a cost effective manner.

Economists can help formulate information on cost effective conservation measures to help states address statewide resource concerns.

Economists may be critical in a staff function to help state technical committees fulfill their responsibilities with sound technical information. This process is essential to maintain a focus on environmental benefits per dollar expended, rather than spread money around to various parts of the state.

Economists have a crucial role to help states evaluate progress and accomplishments in addressing resource problems in priority areas. Without a valid evaluation of accomplishments, the state is indicating that they have not been able to achieve the types of benefits that were proposed, and thus the likelihood for additional funding is diminished.

Economists can help in the offer selection process for EQIP (and other programs) at the state level. Elements include:

- What are the criteria suitable for your state in assessing legitimate outputs
- How can benefits be approximated? How can/should they be scored?
- What similarities could be found for CRP EBI scoring in order to be consistent as well as take advantage of what we have been learning.
- What about joint products verses single products? How can we provide meaningful guidance to programs on these, particularly when the index approaches may have been developed independently. As economists, we know that once we have benefits in dollar

form, we can aggregate across outputs. However, we have a challenge on how to do that when we do not have dollar values for what could otherwise be legitimate outputs. This is the issue of joint products.

Another issue for economists is how to reflect the real value (public or private or both) of each component of “output”. In some states, the value of another 100 acres of habitat for deer is pretty good, whereas in other states it could be considered to be negative. Typically, when economists have numbers we often use average values, whereas we should be trying to look at the margin to determine the value of the marginal product.

Large Livestock Operations

Background

- The proposed rule
- The final rule

Key issue for economists:

Help your state conservationist by providing a valid basis for defining large in a way that is workable and defensible for your state. Keep in mind:

- Clean Water Act and Coastal Zone Act Reauthorization Amendments (CZARA)
- Executive Order on Environmental Justice
- Evolving structure of the industry (we do not want to hinder or “penalize” normal expansion of a family operation)
- Want to minimize the chance of market distortions
- We do not have an abundance of funding for construction of animal waste management facilities for any type or size of operation.
- The statute says “operation”
- The conversion factors in USDA are different than EPA and could evolve in the future to be more valid and technically defensible.

Other items related to livestock issue:

Expansion at other site location

Relocation to where resource problems can be better handled, with greater cost effectiveness.

Working with Non-NRCS People and Entities

Background:

- State Technical Committee
- Locally led process
- Educational assistance
- Technical Assistance from non-NRCS sources
- Partnerships

Issues for Economists:

No longer a Federal agency that can operate in relative isolation. We are accountable and we need to work with others. Why not do it for the discipline as well as for the programs? Many issues of

concern that economists can help provide some of the critical questions and analysis, but much is going on outside NRCS that we can tap.

Much assistance can be obtained from working with people such as ASFMRA, Land Grant Universities and 1890 Institutions, people in other agencies, including state agencies.

Other areas/roles for economists in Farm Bill Implementation

- Support role for the State Technical Committee and the State Conservationist
- Sound economic information on the cost of conservation practices in the state. Not only the FOTG, but also the basis for assessing “cost effective” practices to address resource concerns statewide or in priority areas.
- What are the likely effects of the application of the practices. Do practices provide “joint product” benefits. This can be for the individual producers, but can also be viewed as part of that strategic guidance role for the state conservationist and the state technical committee.
- How can we evaluate the work underway within priority areas? What can the economist contribute to this effort? This is a critical issue. *Do not underestimate* its importance.
- How can the economist help shape the EQIP proposal for tomorrow or next year. The proposed priority area. The avenues for addressing resource problems. How to achieve joint products. Ways of leveraging resources for maximizing environmental benefits per dollar expended. The likelihood of success.

Summary and Conclusions

Major themes in the 1996 Farm Bill are:

- Consistency with market forces
- Focus on environmental concerns and problems
- Emphasize cost effectiveness -- environmental benefits per dollar expended
- Open/participatory process

Roles for economics discipline

- Help in achieving maximizing environmental benefits per dollar expended
- Determining changes in large confined livestock operations and the need for \$
- Working with non-NRCS entities and people

Next Steps

Review the rules and the fact sheets

- Use NRCS Website (<http://www.nrcs.usda.gov>)
- Use FSA Manual

Frame the questions and the needed information

Work with others (NRCS and outside)

Share information and findings

Perhaps arrange work session

Thank you for your attention

Questions and answer session

- 1 ☐ 1996 Farm Bill and the Role for Economists
 - John Stierna
 - Senior Economist
- 2 ☐ Four Topics of Discussion
 - Major Directions in 1996 Farm Bill
 - Sources for Information/Assistance
 - Role for Economists in NRCS
 - Question and Answers
- 3 ☐ Major Cross Cutting Directions
 - Markets to guide decisions in Agriculture
 - More farmer friendly and flexible
 - Revise/refine quasi-regulatory roles
 - Refocus CRP from supply management to environment
 - Consolidate and streamline
- 4 ☐ Major Directions (continued)
 - Maximize environmental benefits per \$
 - Use of CCC/conservation as entitlement
 - Use of participatory process
 - "Fairness" for livestock producers
 - Special cases/niche areas
- 5 ☐ Sources for Information/Assistance
 - NRCS WWW Farm Bill link
 - Definitive source is the NFSAM
 - ◆ Now out as 5 lb document
 - ◆ CD-ROM
 - ◆ Copies
 - Special studies/issue documents
 - Electronic network and teleconferences
 - People (Jerry, Team, Institutes, etc)
- 6 ☐ Role for NRCS Economists
 - Maximize environmental benefits per dollar expended
 - Large Livestock Operations
 - Working with non-NRCS people and entities
- 7 ☐ Maximize Environmental Benefits/\$ Expended
 - Legislative requirement
 - ◆ EQIP

- ◆ CRP
 - ◆ ECARP (umbrella for CRP, WRP, and EQIP)
 - ◆ CFO
 - Public policy goal
 - ◆ Directive for funding priority
 - ◆ Link to GPRA
 - Not same as absolute “Benefit Cost ratio>1.0”
- 8 ☐ Max EB/\$ (continued)
- Criteria for EQIP in state
 - Priority area proposals that are cost effective
 - Cost effective measures statewide
 - Allocation of resources within state
 - Evaluate accomplishments/outputs in priority areas
- 9 ☐ Max EB/\$ (continued)
- Approximating benefits
 - Similarity/differences from EBI for CRP
 - Joint products verses single products
 - Value of product or output
 - ◆ Not average values
 - ◆ Focus on marginal values
- 10 ☐ Large Livestock Operations
- Background
 - Issues for economists
 - ◆ CWA and CZARA
 - ◆ Evolving structure of industry
 - ◆ Minimize market distortions
 - ◆ Conversion factors
 - Expansion or relocation
- 11 ☐ Non-NRCS People and Entities
- State Technical Committees
 - Locally led process
 - Educational assistance
 - Tech Assistance from non-NRCS sources
 - Partnerships
- 12 ☐ Conclusions
- Major Themes are
 - ◆ Market forces
 - ◆ Environmental focus
 - ◆ Cost effectiveness

- ◆ Participatory
- Roles for Economists
 - ◆ Max EB/\$
 - ◆ Large Livestock
 - ◆ Working with non-NRCS

13 ☐ Next Steps

- Review the rules and the fact sheets
 - ◆ Use NRCS Website (<http://www.nrcs.usda.gov>)
 - ◆ Use FSA Manual
- Frame the questions and the needed information
- Work with others (NRCS and outside)
- Share information and findings
- Perhaps arrange work session

14 ☐ Questions and answer session

**Dan Conrad, Conservation Technical Team Leader,
Conservation Operations Division, NRCS**

The following excerpts are from Dan's presentation. He also provided a draft copy of the teams function and mission statement.

- Introductions of the team members and their backgrounds
- Team is charged with detailing for OMB the benefits associated with the agencies Conservation Operations program. We must show OMB why is it different from EQIP, WRP, etc., and what the specific benefits are. Dan would like any input the state economists might have.
- Team needs to determine what data should be used for the CTA - FOCS, guidesheets, templates, NIMS reports, Land Treatment Project Reports, etc.
- We should really be putting our efforts into good progress reporting that can be used to evaluate the program
- Deadline for this report is most likely the next budgeting cycle - need to get our input into the Department and OMB
 - CTA Infrastructure Report was prepared under leadership of Charlie Adams - this report bought us some time on our deadline
 - Still dealing with the appeal on the EQIP portion - \$18 million dollar decision
 - Anything we send to OMB must be credible and defensible
- Suggestion from the audience to go to the field offices and talk to DC's for input. They are the best source of information. The CTA team must have some field perspective to their report.

Handout A - CTA Team Assignment of Functions and Mission Statement

CTA TEAM
Assignment of Functions

- Develops and recommends national policies, provides leadership in activities involving the conservation technical assistance program.
- Analyze and evaluate activities included under the CTA program; to include the basic services to support Conservation Districts (CD) programs, urban assistance, community planning assistance to units of governments, watershed planning, assistance to implement cost-sharing programs, urban assistance, community planning, assistance to units of governments, watershed planning assistance to implement cost sharing programs of state and local units of governments, farmland protection, rural development, providing soil information to the public, highly erodible land (HEL) compliance, wetland conservation compliance, water quality, 319, EPA loans for conservation, partners for wildlife, EPA wetland grants, RC&D treatment measures, and abandoned mine land-water quality treatment (other).
- Display the role of CTA programs, as the basic staff that is needed at the local level in order to develop applications for other USDA programs, to include RC&D, PL-566, EQIP, CRP, WRP, WHIP, Farmland Protection, Conservation Farm Option and others (what is reasonable base program).
- Display, analyzes, and evaluates the major conservation measures and activities supported with CTA funds, and outlines the average cost in terms of staff hours required to perform each of the practices, measures and activities on at least a regional basis or major land resource area.
- Assist in providing overall coordination of the information flow in NRCS, USDA, OMB and Congress relating to the CTA programs.
- Develop national CTA workload, staff and financial needs; use this information in allocating funds to regions and states (Need workload analysis that relates to a formula and tied to strategic plan)
- Outline program requirements and expectations for use of CTA funds.
- Provides national leadership for development of data to support the CTA programs and related activities such as grants, targeting portion of the CTA budget and the allocation of CTA funds (and PL-566, planning and WRP) to allowance holders.

- Analyze CCC reimbursables expected to be earned as related to base CO program and trend reimbursables to the future. Recommend alternatives for strengthening NRCS role with respect to CCC.
- Analyze and evaluate a "systematic process for metering" or obtaining "conservation effects data".
- Need a "quick fix" for NIMS/FOCS for obtaining and analyzing outputs or results (to satisfy GPRA-- Government Performance Review Act)
- Complete "green sheets" (budget/appropriations) -- describes what NRCS accomplished for the CTA (and PL-566- watershed planning, and WRP).
- Input into status review process for FY 97.
- Need cost of doing NRCS work.

MISSION STATEMENT: Articulate the Nation's Base Conservation Program to the American Public

Larry Butler, Enterprise Diversification Specialist, Grazing Lands Technology Institute

Enterprise Diversification

Larry presented a slide show was used to illustrate several applications of enterprise diversity.

Handouts follow: attached

- Grazing Lands Enterprise Diversification (Draft)
- Blending Buffers with Business for Conservation, Cooperation, Enterprise Diversity, and Economic Stability (Draft)
- Diversification Alternatives

GRAZING LANDS ENTERPRISE DIVERSIFICATION

by Larry D. Butler, Grazing Lands Technology Institute
Natural Resources Conservation Service, Fort Worth, TX

General

The owners of grazing lands are breaking with traditions and are considering the various opportunities for increasing profits and diversifying their enterprises on their grazing lands with multiple uses, nontraditional uses, alternative and supplemental enterprises.

Most cash income from grazing lands has traditionally been from the sale of livestock and livestock products. There is increasing diversification of income-producing enterprises. Many other products and services are contributing to the total income. Examples of these include: nontraditional marketing of domestic livestock products such as direct marketing of meat to consumers; marketing of nontraditional animal products such as game ranching of exotic deer; sale of plants and plant products; and sale of access rights for hunting, fishing, and other recreational activities.

Enterprise Diversification

An enterprise is any segment of the land unit's business that can be isolated by accounting procedures so that revenue and expenses can be allocated to it.

Enterprise diversification is the opposite of specialization. When the grazing land owner chooses to specialize, the resources of the unit are concentrated on a special product or service. When the choice is to diversify, the resources are used in more than one enterprise to produce several products and/or services. The number and kind of diversified enterprises for any land unit is often limited and depends upon the resources available and other factors identified in the planning process. The enterprises may be competitive, supplementary, or complementary uses.

All grazing land operations are not able to diversify in the same fashion. The owner's or manager's ability to change enterprises depends upon how flexible existing enterprises are and the operation's ability to meet changing conditions and many other physical, economic, institutional, or social factors. These might be: prices received for livestock products; costs of livestock feed, labor, or other operating expenses; drought or other environmental conditions; new regulations; and changes made elsewhere that affect the existing enterprise(s) such as a neighbor selling to a real estate developer.

Reasons to Diversify

The number of reasons a grazingland owner/manager might choose to diversify with new or additional enterprises are endless; however, the most common reasons are:

1. Current enterprise is not making a profit -- (i.e., cattle prices are low, feed prices are high, drought, fertilizer prices are high, etc.) -- the owner/manager is looking to supplement income.
2. Reduction of financial risk -- Distribution of resources into several enterprises reduces the risk of losing the resources. In other words, "Don't put all your eggs in one basket."
3. Increase ranch income -- The current enterprises may be economically viable, but more income is desired and possible from existing resources.
4. Increase or to obtain a better distribution of cash flow -- Bring cash returns to the land unit's operation at various times throughout the year. Often a livestock grazing operation has only one time during the year when cash is received; for instance, when calves are sold once during the year from a cow/calf operation.
5. Utilize available resources:
 - a. Labor -- Often, labor is needed at peak periods and not needed at other times of the year. This creates a problem for the owner/manager in keeping labor available. When labor can be utilized all year, the owner can afford to keep labor employed and employees are more assured of job security.
 - b. Facilities and Equipment -- As with labor, facilities and equipment are often only needed during a specific time and are not returning anything to the operation during the rest of the year.
 - c. Natural Resources -- Some natural resources are easily recognized and used in a grazing land enterprise while others are not used but could be. For instance, plants preferred by livestock are easily recognized as livestock forage in a grazing enterprise, while some may be aesthetically preferred by recreationists or wildflower enthusiasts in a recreational enterprise.

6. Keep family members on the farm/ranch -- When the next generation is interested in remaining on the farm/ranch, there is often not enough income from existing enterprises to support more than one family. Diversification can sometimes enable family members to remain.
7. Change operations due to regulations -- A new law or regulation can force a change in the operation of the existing enterprises or cause the elimination of the current enterprise.
8. Recognize a consumer need or desire that could be produced or provided on the grazing land unit -- A land unit close to a city could supply the demand for people to get out into the country and enjoy the open space. This could lead to a recreational enterprise such as horseback riding or a tourism enterprise such as a bed and breakfast inn.
9. Personal preference -- A new owner may simply desire to operate a different or additional enterprise than that previously operated.

Technical Assistance Policy & Responsibilities

All enterprises should be managed in a manner that will maintain and/or improve the natural resources upon which they depend; therefore, when planning and implementing any grazing land enterprise, the basic item that must be considered is the impact of the enterprise on the natural resources: soil, water, air, plants, and animals. The enterprise must also be compatible with other enterprises that are or will be in operation on the land unit.

The NRCS conservationist can assist the land owner in any planning stage. If the land owner is just beginning to think of diversifying, then the NRCS conservationist can assist with the identification of grazingland-based alternative enterprises and the evaluation of each alternative. If the land owner has already selected and is about to begin a new enterprise or is already operating it, then the NRCS conservationist can assist with the identification of alternative conservation practices and resource management systems and the evaluation of each of these alternatives.

It is not the NRCS conservationist's responsibility to select the appropriate enterprise for diversification; however, as with any land use, it is the NRCS conservationist's responsibility to provide assistance to the land owner or manager for conservation planning that will meet the needs of the soil, water, air, plant, and animal resources while meeting the land owner's or manager's objectives. The NRCS conservationist can provide appropriate natural resource data, interpretations, and other information that will assist the land owner or

manager to make the appropriate enterprise selection that will not adversely affect the natural resources. NRCS conservationists who work with grazing land owners and managers should be thoroughly familiar with conservation practices that will meet the needs of the natural resources and enhance any enterprise applicable to grazing lands within the local area. Conservationists should acquire enough information about various grazing land related enterprises to enable themselves to discuss the effects on the natural resources and how to present alternative resource management systems that will complement the enterprise and adequately treat any resource concern.

NRCS helps land users evaluate resource potential of their lands for various grazingland-based enterprises. When providing assistance to these landusers, an assessment of current conditions of the plant community and other resources will be made, and the assessment along with a description and methods for achieving the desired resource conditions and plant community will be provided. Conservationists are to assist land users in planning for the maintenance and/or improvement of the resources necessary for the selected grazing land enterprises desired by the cooperator. Conservationists will also provide the land owner/manager with technical assistance in applying conservation practices and implementing the total conservation plan. The conservationist will also provide periodic follow-up assistance to help the land owner/manager to assess and evaluate the success of the conservation treatment and identify further needs of the grazingland-based enterprise.

Assistance will be given in accordance with the *National Planning Procedures Handbook* (NPPH). All soil, water, air, plant, and animal resource concerns will be within the quality criteria identified in the local *Field Office Technical Guide* (FOTG).

Range conservationists, forage agronomists, foresters, plant material specialists, recreation specialists, economists, biologists, soil scientists, and other appropriate specialists need to work as a team to prepare local *Field Office Technical Guide* information. Information, such as plant lists, interpreted for recreation enterprises and soils interpretations for various land uses provide knowledge for effective conservation planning.

Appropriate local technical information must be incorporated into each section of the *FOTG*. Section I (General Resource Information) should contain reference information on grazingland-based enterprises that could be found within the field office area. Section II (Soil & Site Information) should contain soil and site interpretations for those potential enterprises that could be found within the field office area. Section III (The Five Resource Concerns and Conservation Management Systems) should contain scenarios for the most commonly found enterprises and their typical resource concerns; these scenarios will contain sample conservation practices within Resource Management Systems that treat

the resource concerns to acceptable quality criteria. Section IV (Conservation Practice Standards) should contain the conservation practice standards, adapted for local use, appropriate for use on the various grazingland-based enterprises within the field office area. Section V (Conservation Effects for Decisionmaking) will present a framework for decisionmaking that contains a benchmark condition without conservation and the conditions that would be expected with conservation treatment for each scenario contained in Section III.

Diversification Alternatives

by Larry D. Butler, Grazing Lands Technology Institute
Natural Resources Conservation Service, Fort Worth, Texas

There are a multitude of ways grazing land owners can diversify the enterprises that are operated on their lands; however, there are basically four categories of production and marketing strategies, these are:

1. Nontraditional crops, livestock, and other farm products;
2. Service, recreation, tourism, food processing, forest/woodlot, and other enterprises based on farm and natural resources;
3. Unconventional production systems such as organic farming or aquaculture; or
4. Direct marketing and other entrepreneurial marketing strategies.

An enterprise should be based on the limitations and opportunities that the farm or ranch operation and resources present.

There are a multitude of enterprises that might be considered for adoption on a grazing land operation. Each of them is dependent upon and will be based around some natural resources, facilities, certain plants, specific wildlife, and other factors. Often they must be based on several of these factors; however, for sake of convenience, they are loosely organized below by being placed in one category.

Livestock-based Enterprises

Bull development
Cattle drives
Commerical cow/calf
Deer farming
Direct marketing of livestock products to consumer
Exotic livestock (buffalo, ostriches, emus, llamas, miniatures, etc.)
Goats
Heifer development
Management services for other people's livestock
Pasture-based dairying
Pastured poultry
Registered cow/calf
Sheep
Starting yard for yearlings
Stocker operation

Natural Resource-based Enterprises

Biking trails
Camping
Farm & ranch vacations
Fox hunts
Hiking trails
Historical outings
Horseback Riding
Pack trips
Painting
Photography
Picnicking
Rural experiences
Star-gazing
Tours of the farm/ranch
Wagon trains
Wilderness experiences

Facility-based Enterprises

Airplane & helicopter tours of surrounding terrain
Archery
Archery range
Arts & Crafts
Bed and breakfasts
Breeding & training hunting dogs
Bunkhouse camping & mess hall
Business convention center
Camping
Canoeing
Center for research (lodging, classrooms, labs, etc)
Chuckwagon meals
Commercial fish ponds (catfish, trout, etc.)
Concession stands
Cutting horse events
Dance
Dog kennels
Dude ranch
Equestrian center
Exotic game farm
Farm stands
Farmers' market sales
Feedlot
Festivals
Festivals during peak harvest season

Facility-based Enterprises (cont.)

Fish hatchery
Fly fishing & tying clinics
Football, basketball, other type sports camp
Games (horseshoes, etc.)
Golf
Golf driving range
Gun range
Hay rides
Historic museum
Home for children
Horse boarding and trail rides
Horse breeding & training
Hunting & fishing club
Hunting Lodge
Motel units
Nature Study
Obstacle course
Pick-your-own marketing
Professional workshops
Ranch rodeo
Recreation activities for the physically challenged
Restaurant
Rifle or Skeet Shooting
Rodeos
RV park
Seed and supplies distribution
Silhouette range (pistol & rifle)
Special Olympics type events
Sporting clays
Square dancing
Swimming
Swimming
Swimming pool
Tennis
Theatrical productions
Track & Field Sports
Trap & skeet range
Twirling & cheerleading camps
Working ranch vacations

Wildlife-based Enterprises

Wildlife site-seeing tours

Camera safari

Trapping - Furbearers

Varmint calling

Bird watching - Songbirds

Video taping & still photos of paying hunter's hunt

Hunting Enterprises

Big Game Hunting

Antelope

White-tailed deer

Mule deer

Elk

Moose

Bighorn sheep

Mountain Goat

Black bear

Mountain lion

Exotic Introduced Species

Small game hunting

Rabbits

Fox

Prairie dogs

Game birds

Turkey

Quail

Grouse

Partridge

Pheasant

Mourning Dove

Waterfowl

Geese

Ducks

Cranes

Predators

Coyotes

Fox

Water-based Enterprises

Fishing

Warm water (Bass, catfish, bream, etc.)

Cold water (trout, etc.)

Native vs. stocked

Streams

Ponds

Water Skiing

Boating

Canoeing

Tubing in stream or river

Geology-based Enterprises

Four-wheeler & cross country motorcycle track

Jeeps tours

Land fill

Rock collecting

Rock-climbing

Sand & gravel mine

Spelunking

Plant-based Enterprises

Agroforestry

Christmas tree farm

Hay production

Irrigated crops

Lease grazing to others

Native seed production

Wild flower tours & wildflower/seed harvesting

Wood products

Winter-based Enterprises

Cross-country ski trails

Downhill skiing trails

Ice fishing

Sledding

Sleigh rides

Snowmobiling

Real Estate-based Enterprises

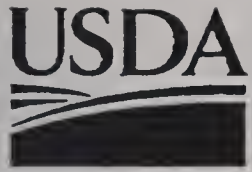
Outdoor recreation memberships

Ranchettes

Real estate development

Retirement village

Time-share cabins/condos



Blending Buffers with Business

For Conservation, Cooperation, Enterprise Diversity, & Economic Stability

Natural Resources Conservation Service (NRCS)

March 1997

by **Larry D. Butler, Ph.D.,**
Enterprise Diversification Specialist, Grazing Lands Technology Institute
Natural Resources Conservation Service, Fort Worth, Texas

Farmers working together to integrate on-farm conservation, with a landscape approach, to diversify farming operations.

Background

Prior to the 1985 Food Security Act (the Farm Bill), many farms were tilled from turnrow to turnrow and planted to commodity crops. The 1985 Farm Bill provided the Conservation Reserve Program (CRP) as an option on Highly Erodible croplands. Under the CRP over 34 million acres were planted to grasses and trees (predominantly grasses). Along with the reduction in commodity crop production, these lands provided a cover for protection against erosion, habitat for many species of wildlife, and a rental payment for the farmer. With the elimination of commodity support payments and as CRP contracts expire and rental payments are lost, many farmers are considering plowing out their CRP lands to increase farm income with an increase in crop production.

Purpose

This technical release provides a conceptual framework for a landscape plan. Here, individual farmers cooperate together to accomplish what each farmer cannot do alone. They will integrate conservation measures on their farms to meet farm production goals, provide appropriate conservation of the natural resources, and diversify their farming operations to add new enterprises for the benefit of all.

This concept is applicable on almost any scale, with any number of farms involved, and is adaptable throughout most areas of the United States on most land uses.

Scenario

The four adjacent farms depicted in figure 1, somewhere in the Great Plains region of the United States, represent any area with any number of farms participating. Four were chosen to represent the concept of neighboring farmers working together to accomplish their production and conservation goals. The actual number of farms it would take to accomplish the objectives depends upon the size of the farms, the general topography and natural resource orientation, the actual goals being attempted, and other local conditions.

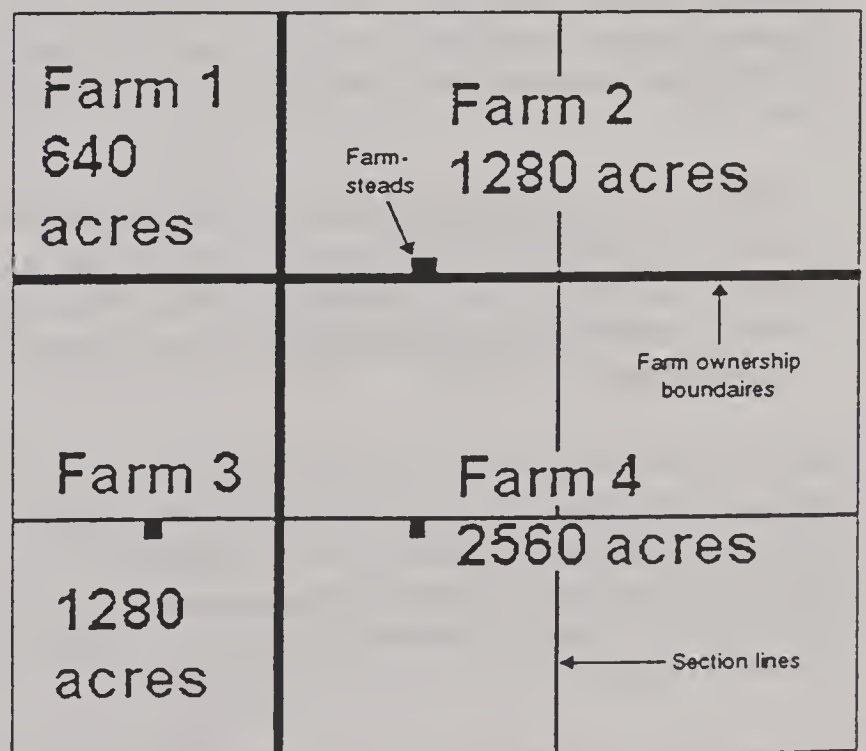


Figure 1
 Four farms somewhere in the Great Plains.

Figure 2 represents the general farming operations before 1985. Almost all available land was tilled on all farms with the exception of some woody areas along the stream. Erosion was occurring on much of the highly erodible soils, water quality was reduced by sediment, wildlife populations were minimal, and farm income depended solely upon crop production. Crop production in this scenario is wheat, corn, and soybeans.

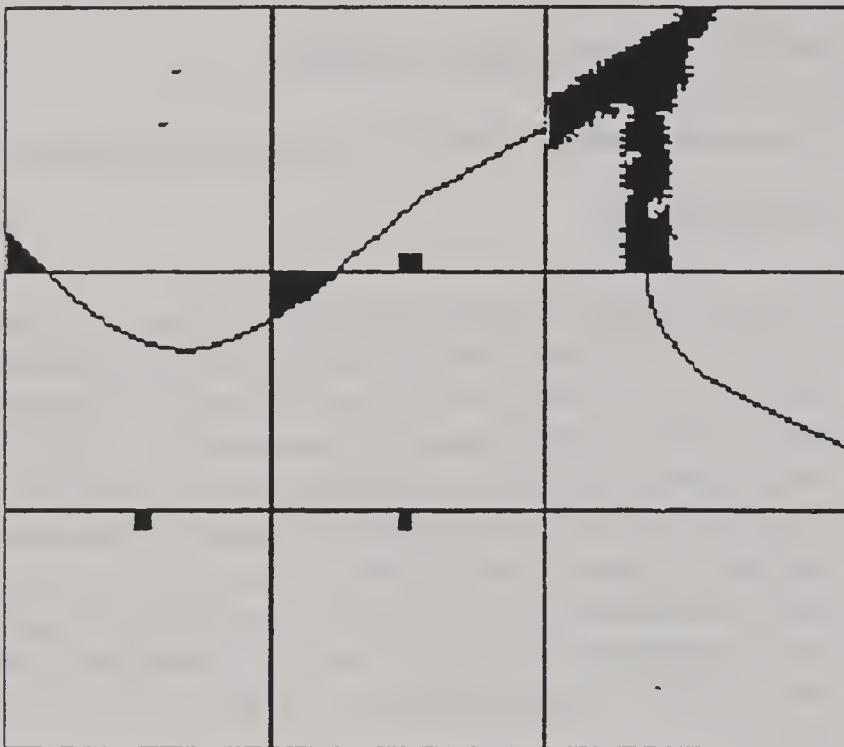


Figure 2
Conditions prior to 1985 and participation in Conservation Reserve Program. Most fields were tilled from turnrow to turnrow. Some woody vegetation existed along streams on some farms.

NOTE: No field-by-field detail is shown in figures 1 through 4. Obviously, areas such as roads, turnrows, field boundaries, and other areas of normal farming activities were and are still present.

Beginning in 1985, these four farmers began to plant significant portions of their farms in the CRP. Figure 3 illustrates the areas planted. Farmers continued to plant the same crops and implement conservation compliance plans, where applicable. All farm income came from crop production and CRP rental payments.

With as much as 25 percent of a county in CRP, the environmental benefits are significant. Soil erosion has been reduced, water quality improved in some areas, and wildlife habitat improved. On the four farms pheasants, white-tailed deer, songbirds, and other wildlife species use these areas for food, reproduction areas, and cover habitat. The numbers of these species have significantly increased on these farms.

Today the opportunity exists for these four farmers (and as many of their neighbors as possible) to work together to find economic incentives to maintain and/or increase conservation measures while meeting crop production goals as well as other individual goals.

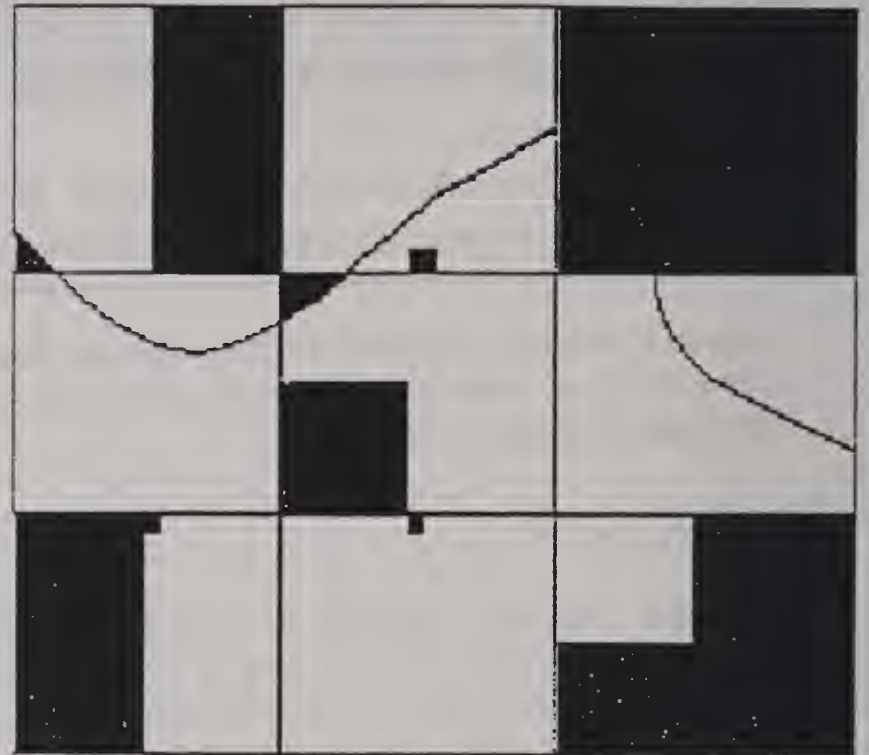


Figure 3
Conditions after planting some fields of highly erodible soil with grass cover.

In this scenario these farmers realize that going back to their previous cropping from turnrow to turnrow will eliminate the wildlife habitat. At the same time, they each realize that maintaining the habitat only on their individual farm will not be sufficient to keep the increased numbers of deer and pheasant they now have. Without these increases there will not be sufficient wildlife to hunt or even enjoy watching on a regular basis. Working together is the only way this can happen.

Working together is the only way this can happen

The farmers met and collectively identified the following objectives:

- improve farm income
- increase agricultural production with traditional crops
- maintain and improve wildlife habitat, and
- keep wind and water induced erosion at acceptable levels

They concluded that all objectives can be met with the application of conservation measures in an integrated fashion across the landscape (see figure 4) and the initiation of fee-hunting enterprises through the formation of a wildlife management association comprised of their individual farms.

Figure 4 depicts a conservation combination the farmers could select and plan. Other equally viable plans could be developed with the following conservation measures as well as others that may be applicable:

- Riparian Forest Buffers
- Contour Buffer Strips
- Windbreaks and Shelterbelts
- Herbaceous Wind Barriers
- Field Borders
- Cross Wind Strips
- Contour Farming
- Grassed Waterways
- Residue Management
- Wildlife Upland Habitat Management
- Wildlife Wetland Habitat Management
- Maintenance of Permanent Vegetation
- Interseeding Grass with Legumes
- Prescribed Grazing and Fences could be used if a farmer chooses to maintain some grass areas and begin a livestock enterprise.

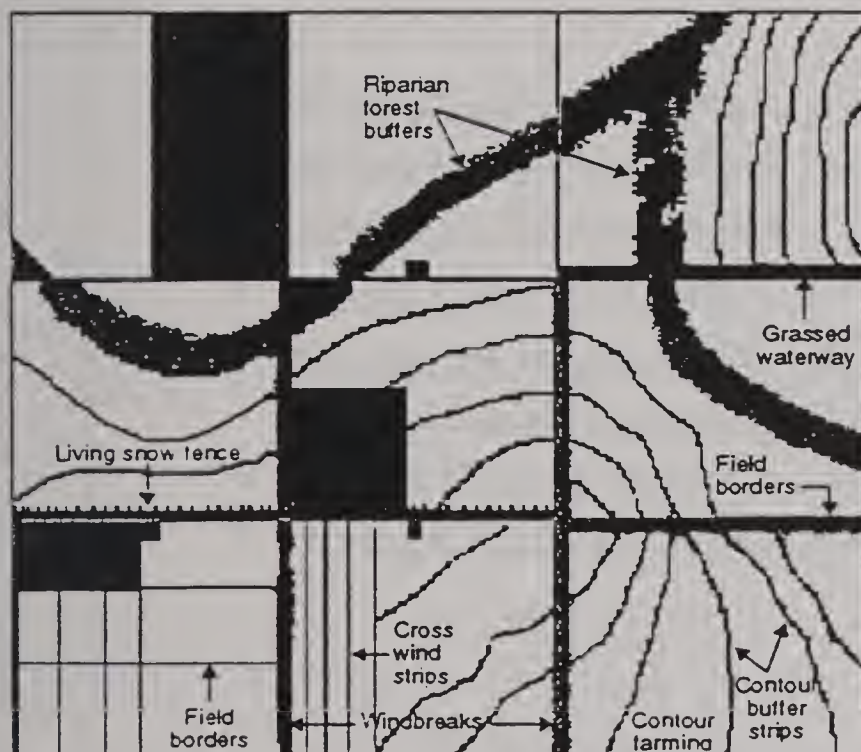


Figure 4
Landscape-level conservation plan for the four farms. Each farmer determines the appropriate conservation plan that fits within his or her own farm objectives and within the landscape plan and the association's overall objectives. This is only one example of various levels of cooperation between and among the four farmers.

The four farmers will begin a wildlife management association. They know that the larger the block of land that can be managed with sufficient wildlife habitat and adequate wildlife travel corridors, the greater the opportunities for an income-producing enterprise. In fact, several enterprises can be established, including deer hunting, pheasant hunting, bird watching, camping, and conservation and nature tourism.

These farmers need to agree on numerous items in the establishment of their wildlife management association. Some of the items are:

- Management goals
- Conservation plan implementation schedules
- Hunter numbers and locations
- Hunting areas & control
- Annual inventory procedures
- Annual harvest recommendations
- Records maintenance
- Camping areas
- Areas of free access
- Pricing of hunting, camping, and other activities
- Fund management and allocation to members
- Meetings
- Membership (adding and deleting members)
- Written agreements or by-laws

By cooperating with each other and using a well-designed and appropriately implemented conservation plan for each farm that fits into a larger landscape-scale plan, these farmers are well on their way to meeting all their objectives.

$$\begin{array}{r} \text{Cooperation} \\ \text{Innovation} \\ + \text{Conservation} \\ \hline = \text{Success} \end{array}$$

For information and assistance on developing a farm-level or landscape-level conservation plan, contact your local Natural Resource Conservation Service field office.

TOPIC IV

SHARED INNOVATIONS, INITIATIVES, AND MORE

- * East Region - Selected Economists**
- * Midwest Region - Alan Lauver, OH & Jody Rendziak, IL**
- * Northern Plains Region - JoDean Nichols, ND**
- * South Central Region - Ted Kuntz, OK, & James Featherston, TX**
- * Southeast Region - Glynda Clardy, MS & Curtis Hobbs, SC**
- * West - June Grabemeyer, WA**
- * Social Science Institute - Kevin Boyle, WI**
- * Natural Resource Inventory Analysis Institute - David Buland, TX**

East Region Presentation

Lynn Knight began the presentations with an overview of the communications network in the East. She described the history of how they have been interacting. About five years ago, there were five new economists in the region, and four of these were brand new to the agency. The Northeast National Technical Center (NTC) provided an orientation workshop, and they began to network with other regional economists. They started Econnect as a quarterly newsletter, eventually publishing 7 issues over a two year period. Based on the strategic plan initiated at Davis, a communications plan started to develop. "ECONNECT" then became a list server for electronic communication.

Vermont - Lynn Knight, Economist

- They are developing an EQIP ranking criteria that is easy to use and can be applied consistently. It does bias towards farmers who have larger acreage's to enroll, or who can take on more of the costs themselves.

New Hampshire - Holly Umphries, Sociologist (IRT)

- Holly Umphries works together with the economist in NH as a team.
- They have been working on a salt marsh restoration along the New Hampshire coastline.

Maryland - John Long, Economist

- John Long discussed EWP in Maryland and work with Large Livestock Operation definitions
- The economist is looked on as the resident statistician for EQIP. They have looked at animal units and exclusion limits. John has been active in EWP. There have been four major storms since 1995. Workload with EWP is huge.

New York - Flo Swartz, Economist

- Flo Swartz talked about use of a spreadsheet to rank and track CRP sign-ups
- New York has experienced some difficulty tracking CRP sign ups. They started to develop a data base for tracking and also ranking WRP sign ups.

West Virginia - Pam Yost, Economist

- Pam Yost discussed a land treatment water quality project in WV (handouts provided)
- Pam has been involved in an 18 month water quality study evaluating elevated fecal coliform and bacteria in water. This is an important agricultural area and important for recreation. It is about two hours from Washington, D.C. Poultry wastes present a water quality problem, along with other livestock confinement areas. It has involved 100 environmental organizations, state, and Federal agencies. Federal and state agencies are providing a combined 60 % cost share for agricultural practices.
- Question: Is it easier getting funding on the Potomac side of WVA as opposed to the Ohio River side? Yes, it flows past the capitol and so is more visible.

History of Potomac Land Treatment Project

Planning began in October 1995 with application for assistance from the Potomac Valley Soil Conservation District. We had several coordination meetings with DC's, Potomac Interagency Water Quality Office specialists, Poultry Association, State Soil Conservation Agency staff, extension agents, PVSCD, and others.

Need for the Project:

Primary purpose of the project was to address water quality issues. NRCS contracted with USGS to conduct an 18 month water quality study at 23 sites in the Potomac Headwaters drainage. This study concluded that there were elevated fecal and bacteria concentrations at many of the sample sites. There was also a positive correlation between the numbers of feedlots and poultry houses and concentrations of nitrates.

The water quality study generated a lot of public interest from environmental groups and the poultry industry. In response to the concern from both sides, NRCS entered into a planning process to implement some improved management practices in the watersheds that would have a long-term positive impact on water quality.

Project Setting:

The project area is the 22 subwatersheds of the Potomac Headwaters portion of West Virginia - located in five counties in the Eastern Panhandle. The area covers 1.7 million acres and includes the premier agriculture region of WV. There are about 3,500 farms in the area and 117,000 acres of prime and important farmland. Agriculture and food processing are the primary industries in this portion of the state. Recreation is also very important in this region, with excellent fishing and canoeing opportunities on most of the Potomac Branches and tributaries.

Population in this area totals about 73,000 people, indicating the low population density per square mile and very rural nature of the landscape. There are only twelve municipalities in the region. However, this area is less than a two hour drive from the metropolitan area of Washington, D.C., making it a popular tourist recreation area.

There are about 870 poultry houses producing some 145,000 tons of litter annually from these operations. In addition, mortality rates in the poultry industry result in about 2 million dead birds that must be disposed of.

There about 330 confined livestock operations in the area, most of them located adjacent to or encompassing a stream. The agriculture industry is vitally important to the economy of this area and to the whole state.

Watershed Priority Process:

A ranking approach was used to prioritize the need for management practices in the 22 subwatersheds of the Potomac Headwaters. GIS was used to illustrate the concentrations of poultry houses and feedlots by hydrologic unit. Data concerning the annual litter production versus the amount of treatable agricultural land by subwatershed was also considered. Finally, information on the types of practices needed and estimated participation rate was incorporated into the ranking process.

Environmental Assessment:

A preauthorization report was written in December 1995, describing the problems and prescribed management solutions. Four practices were recommended for installation - poultry composters, litter sheds, improvements to livestock confinement areas, and nutrient management plans. A planning start was received from National Headquarters and in March 1996, the Draft Plan - Environmental Assessment was released for public comment. An extensive mailing list of more than 100 agencies, environmental groups, and individuals received a copy of the draft plan. A public meeting was held in Moorefield, WV in May, 1996 to solicit more public comments on the plan. Based on comments on the Draft-Plan EA, the riparian buffer zones was added as an optional voluntary water quality improvement practice. The final plan was released in June 1996, less than one year after beginning the planning process. Total cost of the project is \$7,066,100 with NRCS cost sharing 100% of the technical costs. Financial costs are shared 50% by NRCS, the WVSCA 10% and the farmers paying 40%. Funds for the project were based on addressing 60% of the identified needs in the watersheds.

Staff Changes:

There will be some internal changes in the staffing structure in this portion of the state as the project gets underway. Several individuals will be detailed to the Potomac Team to write nutrient management plans and prepare land treatment contracts. Additionally, the WVSCA has added at least one full-time staff position in the region and NRCS has permanently relocated one person.

Inaugural ceremony:

In January 1997, a widely publicized "kickoff ceremony" was held at Moorefield, WV. The ceremony was a media event to announce the opportunity for participation and also to announce a coordinated effort by the WVSCA to offer low interest loans to participants for their share. Sign-ups were opened from February 1 - March 31 for the first nine subwatersheds in the project area. The ceremony attracted 150+ individuals, packing the lobby and overflowing into the parking lot of the South Branch Inn in Moorefield, WV.

Status as of March 1997:

Approximately 2.2 million was budget for this program in 1997. These funds are enough to allow signs at the 60% participation level in the first nine of twenty two subwatersheds. Currently we have around 120 sign-ups. We are continuing media coverage for the program, especially in publications like the State Farm Bureau newsletter, WV Dept. of Agriculture Market Bulletin, and other newsletters. Additionally, the poultry industry has distributed a letter to their growers encouraging them to take a look at this opportunity.

Future:

Environmental groups have put us and the agricultural community on notice that they will be watching this project very closely, expecting to see some measurable changes in the water quality of the Potomac. Additionally, we will be assessing our own abilities to handle the workload and adjust staff as needed.

Delaware - Steve Kemmerle, Economist

Participate in bi-monthly teleconferences with other north east region economist. Responsibility for setting up teleconference and agenda items is rotated among all the economist in the region. Representatives from national office and Technical Institutes are invited to participate to provide updates on new developments and ongoing research concerning new economic and social tools.

Communicate with and monitor activities of other economists throughout the country daily, through ECONNECT.

Economic Workload and Primary Activities

Acting state economist for both Delaware and New Jersey. I also will be detailed to work on a fast tracked PL -566 watershed project in southeast Pennsylvania for 3 - 4 months this summer.

Additional Duties - currently acting GIS specialist for Delaware. As a GIS specialist I have been involved with the national effort to integrate GIS into economics through the case study project at the Social Sciences Institute.

Primary workload has involved planning Land treatment watersheds in Delaware with an emphasis on water quality. Major concerns revolve around managing Poultry manure and dead bird disposal on our highly leachable coastal plains soils. Ground water supplies the majority of water needs in Delaware and there is a highly developed recreational industry that depends on the quality of our Inland Bays and coastal areas. During the winter months the water table on our coastal plains soils is often within one foot of the surface. Over the years an extensive network of ditches was developed throughout the state to provide adequate drainage for agricultural and urban development. Because of this our ground water and surface water systems are inseparable in many parts of our state. What effects one effects the other. Land treatment measures that reduce ground water impacts benefit both ground and surface water quality.

I am also providing GIS and economic input for flood plain management studies in Delaware and flood plain damage assessment for PL-566 watershed projects in New Jersey. The watershed projects in New Jersey have primarily revolved around the impacts of failing tidal gates along the Delaware River. Dikes built by early Dutch settlers in the 1700's have been poorly maintained over the years and residential developments now occupy tidal areas formerly reclaimed for agricultural purposes. NRCS has been involved with replacing these tidal gates to provide adequate outlets for the streams that drain the small watersheds outleting into the Delaware River. The Corps of Engineers has traditionally had responsibility for the Dikes along the main stem of the Delaware River. The need for cooperation with the Corps of Engineers in these projects creates unique challenges since the flood prevention systems are not mutually exclusive and must be worked on simultaneously.

Concerns for the Future Direction of Economics in the Agency

- Workload has increased as our numbers have dwindled. There seems to be a much wider area of responsibility for state, regional and national duties. However, there have been no new career path opportunities for advancement commensurate with these increased responsibilities. The dismantling of the NTC's has created a void for a technical career path for economist. After achieving a working level grade 12 many former economist have opted for different career paths to further their careers. This has added to the shortage of qualified economist in our agency.
- Openings for state economist go unfilled because there are no applicants or qualified people in training to take there place when economist retire or take other jobs within the agency. There is a need to reinstitute a training program for new economist within the agency.
- There are so many new economic and social tools in specialized areas being developed that it is becoming difficult to keep up with all the new advancements. There is a greater need for workshops and training to keep us current on our discipline. A coordinated effort at the national and or regional level is needed to organize these sessions and make sure money is available for attendance at these sessions.

Midwest Region Presentation

Jody Rendziak and Alan Lauver summarized various innovations and initiatives of the Midwest region.

Jody Rendziak - Community Planner, IL

- Jody has been working in Illinois on integrated social sciences into the planning process. They have been working on a rapid resource appraisal consistent with the nine step planning approach. The appraisal includes information packets, group tour by bus, educational presentations, and group discussion
- It is intended to bring together stakeholders and government. Tours have been conducted which include information packets, educational presentations, and group discussions. Tours provide opportunities for the public to see interrelated issues, and encourage holistic thinking. It initiates public outreach, enabling people to find out social, cultural, and political information, and allows them to develop a sense of community.
- Why do tours?
 - educates about functions/ interactions of watershed
 - fosters discussion, learning
 - gather relevant social, economic, political, cultural information
 - gives group purpose & identity
- They have been developing community partnerships at the East Metro St. Louis area and in the Tri-State Area (Chicago metro area). They have also been using historical information in conservation planning.

Alan Lauver - Economist, OH

- Alan presented alternative methods for determining Wetland Reserve Program easement values by showing different worksheets for Midwest's alternative methods
- There are three alternative methods for easement valuation being used in the Midwest region. Nationally, there are a total of five states using alternative methods. Minnesota and Wisconsin use a net income approach, with income capitalized using a blended interest rate including farm real estate loan rates and the borrowers opportunity cost. Ohio uses a current agricultural value determined by the state, with some modifications to fit local market conditions. Iowa has developed an alternatives comparison worksheet for land coming out of CRP. This is available in electronic form.
- Benefits of these approaches:
 - Landowners will know before applying what NRCS will pay for his/her parcel offered for WRP. Savings of there and dollars in implementing WRP.

- In addition the WRP initiatives, Wisconsin has an evaluation of water quality benefits resulting from on farm installation of conservation practices and urban best management practices. The benefit evaluation is based on a comparison of real estate values of two lakes in the Madison area.

Alternative methods for determining Wetland Reserve Program easement values

- Waiver of limited appraisals
According to Subpart D - Easement Acquisition - Section 514.34(a)(2) of the National Wetlands Reserve Program Handbook, where the State Conservationist has specific information that would make it possible to determine easement values without the use of the limited appraisal process, a waiver of the limited appraisal requirement can be granted by the Program Manager at the National Office.

A. Minnesota

Methodology

Net Income Approach or Capitalization of Net Return

Net Income Based Upon Corn or Wheat Production, (Price) times (Yield) minus (Production Cost) equals (Net Return)

Price = 5 year average for corn or wheat.

Yield = provided by area soil scientist using most appropriate sources for yields. FOTG, published reports, MLRA yield data, etc

Production Costs = Minnesota Extension Service Publication

"Productivity Factors and Crop Equivalent Ratings for Soils of Minnesota". This publication gives average production costs per acre of principal crops by production areas in Minnesota.

Capitalization Rate = Weighted interest rate, 30% is an opportunity cost of the landowner's capital and 70% is the current borrowed capital rate.

The Comparison table and associated worksheets follow:

WETLAND RESERVE PROGRAM: APPRAISED VALUES COMPARISON MINNESOTA

Landowner	USF&WS and RECD			NRCS METHOD		
	Appraised Value	Acres	Value/Acre	Appraised Value	Acres	Value/Acre
Wendinger, Rosemary	\$281,500	662	\$425	\$243,488	661.5	\$368
Wendy Farm	\$52,500	99.6	\$527	\$49,835	95	\$525
Lampert, G. & D.	\$14,565	16.5	\$883	\$15,613	16.5	\$946
Lindbo, E. & M.	\$5,500	5	\$1,100	\$5,133	5	\$1,027
Thompson, E. & M.	\$25,180	79	\$319	\$41,202	79	\$522

WETLAND RESERVE PROGRAM
Table - 1 Average Production Cost Per Acre
By Production Area in Minnesota
FY 1997

AREA	CORN	WHEAT
1	191.16	77.52
2	195.58	77.19
3	185.05	72.94
5	170.33	65.04
6	163.65	63.21
7	153.45	62.93
8	155.19	69.50
9	156.55	84.94
10	151.99	64.12
11	161.03	81.95
12	163.22	85.13

PRICE OF CORN PER BUSHEL = \$2.30

PRICE OF WHEAT PER BUSHEL = \$3.52

AREA COUNTIES:

1. Fillmore, Goodhue, Houston, Olmsted, Wabasha and Winona
2. Dakota, Dodge, Freeborn, Mower, Rice, Steele, and Waseca
3. Carver, Hennepin, Kandiyohi, Le Sueur, McCleod, Meeker, Scott, and Wright
4. Blue Earth, Brown, Cottonwood, Fairbault, Jackson, Martin, Murray, Nicollett, Nobles, Redwood, Renville, Sibley, and Watonwan
5. Big Stone, Chippewa,, Grant, Lac Qui, Parle, Lincoln, Lyon, Pipestone, Rock, Stevens, Swift, and Yellow Medicine
6. Anoka, Douglas, Isanti, Mille Lacs Pope, Ramsey, Sherburne, Stearns, and Todd
7. Aitkin, Benton, Carlton, Chisago, Crow Wing, Kanabec, Morrison, Pine, Wadena, and Washington
8. Becker, Hubbard, and Otter Trail
9. Clay, Traverse, and Wilkin
10. Beltrami, Case, Itasca, Koochinchig, and Cook
11. Clearwater, Lake of the Woods, Mahnomen, Marshall, and Pennington
12. Kittson, Norman, Polk, Red Lake, and Roseau

WETLAND RESERVE PROGRAM
LAND EASEMENT VALUES CALCULATION WORKSHEET (EXAMPLE)
MINNESOTA

- I. Landowner Mr & Mrs. Why County- Stearns
- II. Cropland Maximum Easement Value \$1,580
- III. Current Interest Rate = 0.0897
- IIIa. Prod. cost _____ minus Local taxes _____ = Prod. Cost
- IIIb. Source of local taxes _____
- IV. Specific Easement Value Calculation

	Map No. (1)	Soils (2)	Acres (3)	Yields By Soils (4)	Drained Partial None (5)
Soil-A	-	-	-	-	-
Soil-B	-	-	-	-	-
Soil-C	-	-	-	-	-
Soil-D	-	-	-	-	-
Soil-E	-	-	-	-	-
TOTAL					

V.	(A) Price per bu	X	(B) Yield per ac	=	(C) Gross Return per ac	-	(D) Prod. Cost per ac	=	(E) Net Return per ac	(F)(G) Easement Value per ac	Total Value (dol)
Soil-A	-		-		-		-		-	-	-
Soil-B	-		-		-		-		-	-	-
Soil-C	-		-		-		-		-	-	-
Soil-D	-		-		-		-		-	-	-
Soil-E	-		-		-		-		-	-	-

Total _____

INSTRUCTIONS:

- I. Enter the landowners name and the county.
- II. The maximum easement value will not change.
- III. The interest rate is set for FY95.
- IIIa. Enter local taxes and production cost (Prod. costs are attached)
- IV. Enter the mapping units, soils in the tract, acres of each and yields. If soil is drained use 100% of soil potential. If some drainage is needed, use 75% of max yields. If not drained use actual yields.
- V. (A) Enter the price per bushel - \$2.18 for corn and \$3.16 for wheat
- (B) Enter crop yield.
- (D) Enter the production costs minus the taxes that were determined for your county (from IIIa).
- (F) Divide the answer in "E" by .0897.
- (G) Multiply "F" by IV(3) to get total easement cost. If "E" is a negative, put \$100 in "F" and execute "G" above.

COMPUTATIONS:

Column C=A x B | Column E=C - D | Column F= E/.0897 | Column G=F x acres of land in that soil.

B. Wisconsin

Methodology

Net income Approach or Capitalization of Net Return

Net Income Based Upon Corn Production.

(Price) times (Yield) minus (Production Cost) equals (Net Return).

Price = 5 year average for corn

Yield = State soil survey database

Production Costs = Crop budgets FOTG for conventional tillage, and conservation tillage,

Net Return = This composite net return, (25% conservation tillage and 7.5% conventional tillage)

Capitalization Rate = Weighted interest rate. 30% is an opportunity cost of the landowner's capital and 70% is the current borrowed capital rate.

Comparison (should probably be last since it is the result of the other material), Easement Tables, Worksheet and follow:

APPRAISED VALUES COMPARISON WISCONSIN

Property	Location	Appraised Value of Parcel		NRCS Easement Valuation	
		Total	<i>Per Acre</i>	Total	<i>Per Acre</i>
1. 61.5 acres	Green Lake Co	\$34,000	\$552	\$28,042	\$456
2. 51.1 acres	Rock Co	44,500	871	29,225	572
3. 40 acres	Portage Co	9,600	240	6,408	160
4. 38.2 acres	Brown Co	18,700	490	19,790	518
5. 22.2 acres	St. Croix Co	6,800	306	6,273	283

WISCONSIN WETLAND RESERVE PROGRAM
COUNTY ADAMS

The easement values shown are based on the net return per bushel of corn. The gross return less production costs and property taxes determines the net return. Production costs are a composite of conventional and conservation tillage methods. Property taxes are county average rates for agricultural land from the Wisconsin Department of Revenue. The capitalization rate is a composite of the current lending rates for agricultural properties and the borrower's opportunity cost of capital. The net return per acre is capitalized by this rate to determine the easement value.

Gross Return (115 bu.*\$218/bu) \$262.20		Production Costs (\$202.51*75%)+(186.18*25%) \$198.43		Property Tax \$16.82		Net Per Acre \$46.95		Net Per Bushel \$0.408
Corn Yield	Easement Per Acre	Corn Yield	Easement Per Acre	Corn Yield	Easement Per Acre	Corn Yield	Easement Per Acre	
30	\$151.11	64	\$322.37	98	\$493.63	132	\$664.89	
31	156.15	65	327.41	99	498.67	133	669.93	
32	161.19	66	332.44	100	503.70	134	674.96	
33	166.22	67	337.48	101	508.74	135	680.00	
34	171.26	68	342.52	102	513.78	136	685.04	
35	176.30	69	347.56	103	518.81	137	690.07	
36	181.33	70	352.59	104	523.85	138	695.11	
37	186.37	71	357.63	105	528.89	139	700.15	
38	191.41	72	362.67	106	533.93	140	705.19	
39	196.44	73	367.70	107	538.96	141	710.22	
40	201.48	74	372.74	108	544.00	142	715.26	
41	206.52	75	377.78	109	549.04	143	720.30	
42	211.56	76	382.81	110	554.07	144	725.33	
43	216.59	77	387.85	111	559.11	145	730.37	
44	221.63	78	392.89	112	564.15	146	735.41	
45	226.67	79	397.93	113	569.19	147	740.44	
46	231.70	80	402.96	114	574.22	148	745.48	
47	236.74	81	408.00	115	579.26	149	750.52	
48	241.78	82	413.04	116	584.30	150	755.56	
49	246.81	83	418.07	117	589.33	151	760.59	
50	251.85	84	423.11	118	594.37	152	765.63	
51	256.89	85	428.15	119	599.41	153	770.67	
52	261.93	86	433.19	120	604.44	154	775.70	
53	266.96	87	438.22	121	609.48	155	780.74	
54	272.00	88	443.26	122	614.52	156	785.78	
55	277.04	89	448.30	123	619.56	157	790.81	
56	282.07	90	453.33	124	624.59	158	795.85	
57	287.11	91	458.37	125	629.63	159	800.89	
58	292.15	92	463.41	126	634.67	160	805.93	
59	297.19	93	468.44	127	639.70	161	810.96	
60	302.22	94	473.48	128	644.74	162	816.00	
61	307.26	95	478.52	129	649.78	163	821.04	
62	312.30	96	483.56	130	654.81	164	826.07	
63	317.33	97	488.59	131	659.85	165	831.11	

WISCONSIN WRP FOREST EASEMENT PAYMENTS
FY 97
Per Acre

COUNTY	Easement Values		COUNTY	Easement Values	
	Perpetual	30-Year		Perpetual	30-Year
Adams	\$500	\$375	Marathon	\$500	\$375
Ashland	214	161	Marinette	500	375
Barron	500	375	Marquette	500	375
Bayfield	258	194	Menominee Nation ¹	470	353
Brown	500	375	Milwaukee	500	375
Buffalo	388	291	Monroe	434	326
Burnett	368	276	Oconto	500	375
Calumet	500	375	Oneida	500	375
Chippewa	253	190	Outagamie	500	375
Clark	364	273	Ozaukee	500	375
Columbia	500	375	Pepin	450	338
Crawford	417	313	Pierce	500	375
Dane	500	375	Polk	500	375
Dodge	428	321	Portage	500	375
Door	500	375	Price	274	206
Douglas	225	169	Racine	500	375
Dunn	426	320	Richland	500	375
Eau Claire	464	348	Rock	500	375
Florence	470	353	Rusk	231	375
Fond du Lac	500	375	St Croix	500	173
Forest	460	345	Sauk	500	375
Grant	414	311	Sawyer	376	375
Green	488	366	Shawano	500	282
Green Lake	500	375	Sheboygan	500	375
Iowa	500	375	Taylor	311	375
Iron	272	204	Trempealeau	299	233
Jackson	402	302	Vernon	421	224
Jefferson	500	375	Vilas	500	316
Juneau	500	375	Walworth	500	375
Kenosha	500	375	Washburn	366	375
Kewaunee	500	375	Washington	500	275
La Crosse	500	375	Waukesha	500	375
Lafayette	453	340	Waupaca	500	375
Langlade	412	309	Waushara	500	375
Lincoln	445	334	Winnebago	500	375
Manitowoc	500	375	Wood	500	375

I/ Based on the average of Langlade, Oconto, and Shawano Counties.

**WETLAND RESERVE PROGRAM FY-97
EASEMENT VALUATION WORKSHEET
WISCONSIN**

Name of Landowner: _____ Date: _____

County: _____ Permanent or 30-YR Easement: _____

Legal Description: _____

Maximum Easement Values:

Cropland: \$900/acre

Forest Land: \$500/acre

Parcel Easement Value Calculation

Soil Mapping Unit	Land Use	Acres	Corn Yield ^{1/}	Crop and Pasture Value ^{2/}	Maximum Easement Value	Total Calculated Value ^{3/}
Grand Total						

CALCULATE THE EASEMENT VALUE BASED ON THE LESSER OF CROP AND PASTURE VALUE PER ACRE OR THE MAXIMUM EASEMENT VALUE

^{1/} From State Soil Survey Database

^{2/} Corn yield multiplied by easement valuation factor - SEE YIELD TABLE

^{3/} Crop and pasture value or maximum easement value (whichever is less) multiplied by the estimated number of acres

NRCS Representative _____

C. Ohio

Methodology

The Ohio Department of Taxation annually calculates a tax assessed value for every soil. This value tends to be significantly lower than the fair market value. They maintain records of every county's average tax assessed value and average fair market value, which is used to calculate a tax assessed value as a percent of fair market value for every county. An estimate of fair market value for every Ohio soil can be made by multiplying each tax assessed value by the inverse of the state wide average of the tax assessed values as a percent of fair market value.

For example, the state wide average 1995 tax assessed values as a percent of fair market value was 32.57 percent. So the multiplier would be $1/3257$ or 3.1. A state wide factor is preferred because this will avoid the inequity of different values for the same soil type in several counties.

A table comparing the NRCS calculations versus appraised values, Easement values charts, and Worksheets follow:

CALCULATED VALUES vs. APPRAISED VALUES OHIO

			Appraised Value		NRCS Valuation	
Landowner	(County)	Acres	Total	Per Acre	Total	Per Acre
Kinnison, Craig	(Darke)	15.6	\$4,420	\$283	\$4,253	\$273
Loveless, Marcella	(Madison)	6.2	\$6,000	\$968	\$1,345	\$217
Hidden Creek	(Madison)	230.2	\$240,560	\$1,045	\$198,952	\$864
Litzenberg, Bruce	(Marion)	114.0	\$114,000	\$1,000	\$80,507	\$706
Shuff, Robert	(Marion)	92.0	\$66,700	\$725	\$91,667	\$996
Schwyn Property	(Union)	44.0	\$48,400	\$1,100	\$45,353	\$1,031
Rockenbaugh	(Union)	22.6	\$18,080	\$800	\$12,270	\$543
Super Veal, Inc.	(Wayne)	45.2	\$40,680	\$900	\$27,299	\$604

**1996 MARION COUNTY WRP EASEMENT VALUES
OHIO**

USE Symbol	Name	Cropland* (\$/Acre)	Other** (\$/Acre)
BgA	BENNINGTON SILT LOAM, 0 TO 3 PERCENT SLOPES	470	
BoA	BLOUNT SILT LOAM, 0 TO 2 PERCENT SLOPES	1120	
BoB	BLOUNT SILT LOAM, 2 TO 6 PERCENT SLOPES	970	
CdB	CARDINGTON SILT LOAM, 2 TO 6 PERCENT SLOPES	650	
CeB	CENTERBURG SILT LOAM, 1 TO 4 PERCENT SLOPES	900	
DeA	DEL REY SILT LOAM, 0 TO 3 PERCENT SLOPES	860	
EtA	ELLIOTT SILTY CLAY LOAM, 0 TO 3 PERCENT SLOP	940	
FcA	FITCHVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	430	
GwA	GLYNWOOD SILT LOAM, 0 TO 2 PERCENT SLOPES	580	
GwB	GLYNWOOD SILT LOAM, 2 TO 6 PERCENT SLOPES	470	
KeB	KENDALLVILLE LOAM, 2 TO 6 PERCENT SLOPE	830	
La	LATTY SILTY CLAY	1120	
MaA	MARTINSVILLE LOAM, 0 TO 2 PERCENT SLOPES	1690	
MaB	MARTINSVILLE LOAM, 2 To 6 PERCENT SLOPES	1440	
Me	MEDWAY CLAY LOAM, RARELY FLOODED	2590	790
Mf	MILFORD SILTY CLAY LOAM	2230	
Mu	MUSKEGO MUCK	610	
Ne	NEWARK SILT LOAM, OCCASIONALLY FLOODED	760	
No	NOLIN SILT LOAM, OCCASIONALLY FLOODED	1150	
OcA	OCKLEY LOAM, 0 To 2 PERCENT SLOPES	1150	
OcB	OCKLEY LOAM, 2 TO 6 PERCENT SLOPES	970	
Pa	PAULDING CLAY	470	
Pm	PEWAMO SILTY CLAY LOAM	1980	
Sa	SARANAC SILTY CLAY LOAM, OCCASIONALLY FLOODED	1260	
ShB	SHINROCK SILT LOAM, 2 TO 6 PERCENT SLOPES	970	
ShC2	SHINROCK SILT LOAM, 6 TO 12 PERCENT SLOPES, ERODED	540	
SkA	SLEETH LOAM, 0 TO 3 PERCENT SLOPES	1300	
So	SLOAN SILTY CLAY LOAM, OCCASIONALLY FLOODED	1550	
We	WESTLAND CLAY LOAM	2480	
WhA	WHITAKER LOAM, 0 TO 3 PERCENT SLOPES	1400	

* Cropland easement value for soils not listed is \$310/acre.

** Other easement values are \$220/acre unless shown otherwise.

MARION COUNTY MINIMUM EASEMENT VALUE - \$900/acre

WETLAND RESERVE PROGRAM EASEMENT VALUATION WORKSHEET OHIO

I. Landowner _____ County _____

II. County Maximum Easement Value _____

III. Specific Easement Value Calculation

A	B	C	D	E	F
Soil	Land Use	Acres	Easement Value/Acre	Total Value (\$)	Total CAP Value (\$)
Totals Per Acre					

IV. Offer the landowner the lessor of the two total values in columns E and F

V. 30 year easement (answer from IV) _____ * 75% = _____

Instructions:

1. Enter the landowners name and the county
2. Enter the county's maximum easement value from your county WRP easement value list.
3. Enter the soil types (Symbol), corresponding land use (cropland or other), and acres.
4. Enter the WRP easement value for the specific soil type and land use from your county WRP easement value list. Then multiply the value per acre (D) times the number of acres (C) to get the value for that soil type (E)
5. Sum (C) and enter in the Totals line. Sum (E) and enter in the Totals line. Divide Totals (E) by Totals (C) and enter in the Per Acre (F) line.
6. Multiply County Maximum Easement Value (II) by the total acres being offered and enter in Totals (F).
7. Complete section IV.
8. Complete section V for a 30 year easement.

NRCS Representative _____ Date: _____

National Economics Meeting in Nashville - Mar. 24-28, 1997
Northern Plains Economist Report

Presented by JoDean Nichols, Economist, ND

I. Networking Activities

- A. Jerry Schaefer is part of Larry Edmonds VoiceCom group for the Western Region. He is able to keep informed about what they are doing and can relay it to our region.
- B. He is the lead individual for our region, but has had only a couple of items to pass on.
- C. He feels that he has had a hard time making the transition from being part of the WNTC to combining with four states of the MNTC to become the Northern Plains region. He feels that we are making progress, but that we need to keep each other better informed of the different national activities we are each involved in. He also feel that more teleconferences would help.
- D. We have held a couple of teleconferences with the Midwest region.
- E. I served on the Economics Communication and Discipline Leadership Committee which was formed after our last meeting in Davis, CA.

II. Current work.

A. Montana

- 1. Developing information for the Cost Comparison Tool for FOCS by:
 - a. Populating data tables
 - b. Providing training to 4 state economists on how the tool works
 - c. Providing training to state FOCS cadre on how the tool works so they can train their peers.
- 2. Develop cost information for all practices needed for EQIP that are not currently in the Great Plains cost list - placed in the both the Tech Guide and the long term contracting module of FOCS.
- 3. EQIP
 - a. Has developed a training package which includes:
 - how the local work group planning process should work
 - explained resource assessments
 - explained how to get public involved
 - how to do strategic planning and move from there to an annual plan of operations to accomplish conservation objectives.
 - b. Other EQIP duties:
 - helped develop statewide resource concerns
 - assisted in the development of the priority resource area requests
 - assisted in the development of ranking criteria for the State Technical Committee to use in ranking priority resource areas
 - assisted in the development of ranking criteria for contracts within the statewide resource concerns

4. Conservation planning activities
 - a. Trainer for the Conservation Planning course
 - b. One of four people in state responsible for overall group planning and individual planning
 - c. Montana's facilitator for the Natural Resources Conservation Planning course taught via satellite last year
5. Instructor for the following National Employee Development Center courses:
 - a. Windbreak Technology (this summer)
 - b. Economics for Conservation Planning (June)
6. Provide training on the people side of things such as:
 - a. Group Dynamics - how to work with local people to make local work group planning activities successful
 - b. Facilitation - how to be a facilitator for local work group planning activities
 - c. Teaming - how to work within a team to make your planning activity successful
7. He has co-authored some articles with an Ag. Research Service researcher that incorporates economics into his research. These articles were published in the Journal of Soil and Water Conservation and the Montana Farmer.

B. Colorado

1. Wrote the plan and developed the economic aspect for Limestone-Graveyard Creeks Watershed This Watershed Plan-Environmental Assessment Plan is to improve the surface and groundwater quality by reducing the agricultural contribution of heavy metals, salts, sediment, and nitrate contamination. This will be accomplished through accelerated technical and financial assistance for the installation of on-farm land treatment measures. The measures are to reduce contaminants in the groundwater, surface water, and the Arkansas River to an acceptable level and protect the soil resource base from excessive irrigation induced erosion.
2. Participated in developing a supplement to the Wolf Creek - Highland Watershed. The original recommended plan provides technical and financial assistance to accelerate installation of non-irrigated cropland resource management systems on farms in the watershed.

The supplemental plan provides additional technical and financial assistance to install rangeland management systems on formerly non-irrigated cropland retiring from the Conservation Reserve Program as 60% of the cropland has been in CRP. A supplemental plan is needed to add the practices to treat the highly erodible land that will remain in permanent vegetation and be used for livestock production. Since the treatment specified in the CRP contracts reduced soil losses to acceptable levels, post-contract treatment is necessary to maintain that level of treatment. Providing producers financial assistance to establish appropriate grazing management systems will accomplish the purpose of the original plan, with minor variation: "maintain long-term productivity of the soil resource base by maintaining soil erosion at acceptable levels by installing practices on former non-irrigated cropland."

3. Coordinated development of monitoring plans for each of the 4 salinity areas in Colorado. The plans included the environmental and economic effects from installation of conservation practices to reduce salinity.

4. Received applications on 4 new PL-566 projects. Scoping and environmental assessment public meetings were held. Each project has water quality and watershed protection objectives. One draft plan has been written.
5. Participated in 5 EWP projects and coordinated development of the effects portion, including the economic aspects.
6. Helped write 6 resource plans and did the economic to the problems and effects for the priority areas that were decided on. Worked with the Resource Planning Staff in developing a "Resources Planning Source Book" to inform Districts and other interested stakeholders on possible problems and data to help develop EQIP priority areas.

C. Nebraska

1. Assisted with the Field Office Tech Guide update
2. Has been testing and monitoring FOCS economic package
3. Worked with Dave Buland on the IMPLAN computer program which computes regional benefits. The program was run on the Turkey Creek Project in Nebraska and Kansas. A riparian buffer strip analysis is also being prepared for the Turkey Creek Watershed.
4. Helped Field Offices with latest CRP sign ups.
5. Reviewed and commented on the Draft Water Resources Handbook for Economics.
6. At the request of Fish & Wildlife (F&WL), a biological assessment (BA) was completed; for all water resource projects under construction or in planning. F&WL did not approve the BA for the Wahoo Watershed Project (in planning - interagency review draft stage) because of decreased flows to the Platte River. A formal consultation is scheduled with F&WL in the near future to further address the issue.

D. Kansas

1. Cooperated with sister agencies and chemical company representatives to study alternative methods of converting CRP land back to crop production. The results were consistent with similar studies completed by other states. It was felt that part of the CRP evaluation should include an economic analysis of alternative uses of CRP land. Three alternatives were considered which were: 1) Crop production; 2) Grass hay production; 3: Livestock grazing.

They interviewed farmers throughout the state and developed a data set showing to the economic effects of the three alternatives. Most farmers plan to put their land into crops and would show a profit; however, harvesting grass hay was a close second. It's sort of like an orchard. An orchard takes 6 to eight years before good production is realized and then they can harvest a good crop for several years. The CRP land is ready for production and could be harvested profitably as hay. Grazing of feeder cattle for 90 to 120 days generally was profitable for farmers. Grazing by cows and calves was marginal for most farmers.

2. Kansas has been using the MAX program (Farming for Maximum Efficiency) during the last three years to develop a data set to encourage the adoptions of conservation tillage practices. This program, initially written for Corn and Soybeans, was rewritten and includes several other crops which fit Kansas conditions. A nutrient balance sheet and a water quality analysis report has been added.

3. In 1996 three of Kansas' watersheds decided that the MAX program would be a good tool to help track phosphorus. These watershed entered into a contract with CTIC to collect data from farmers for several tillage alternatives under irrigated and non-irrigated conditions. This approach increased significantly the number of farmers involved in the MAX program as well as making the data evaluation more reliable. Stream and lake water quality monitoring stations within these watersheds and at downstream municipal lakes provided a good incentive to monitor herbicide and fertilizer application rates and timing. The results for this years MAX study are very promising. Farmers can gain personal experience to do a better job and still make a profit. Participating farmers applied herbicides according to recommended rates or below. They can also experiment with crop rotations and decrease herbicide use even more as crops compete with weeds. Testing roundup ready soybeans compared to standard soybeans is another possibility. Side by side comparisons are very helpful.

E. South Dakota - currently South Dakota does not have an economist. A soil conservation (Doug Vik) from one of the field offices has been acting in this capacity.

1. He has worked on two river basin Studies - Big Sioux River Basin and the Bad River River Basin
2. He developed a CRP worksheet. Dave Archer (ND) and Dave Langemeier (NE) assisted him. This worksheet was to help people make a decision on what to do with their land in soon to be expiring CRP contracts.

F. North Dakota

1. We have continued to revise the CRP worksheet developed by Doug Vik (SD) to best meet our needs. It includes the following alternatives.
 - Crop it
 - Hay it
 - Graze it
 - Rent it out as cropland
 - Rent it out as hayland
 - Rent it out as grassland
 - re-enter it into CRP
2. Worked on case studies on windbreak renovation.
3. Providing assistance to Standing Rock Sioux Indian Reservation in making more efficient and productive use of their natural resources.
4. Have begun to work with a group of farmers in the Devils Lake Basin (Grand Harbor). They are interested in knowing the value of their wetlands. They currently have a ongoing project that allows them to drain some of their wetlands. These wetlands have been mitigated for by this project and they want to know if they would benefit from draining these wetlands. They realized that not all of wetlands are the same and they want to know how to best treat these differences. Another objective of these farmers is to gain some knowledge through GPS yield monitoring. They would like to be able to develop a fertilizer and chemical program that complements the yield monitoring.
5. Conservation Planning activities (both ongoing and upcoming) include:
 - a. Maintain CARE databases and providing training to field offices.
 - b. Maintain the FOTG cost section.
 - c. Developing Management System Templates and supporting documents.
 - d. EQIP Final Rule economic analysis.

- e. Develop economic databases and provide training on GLA
- f. Update the flat rate cost list for FOTG and FOCS.
- g. Provide economic support to EQIP (i.e. costs lists, allocation of funds among priority areas to maximize environmental benefits per federal dollar, etc.)

6. Watershed Planning activities.

- a. We have worked on a couple of projects where the objective was to provide a dependable source of good quality and quantity of the water for livestock. One of these projects has been constructed and we plan to begin follow-up with the producers to see how they like it. We are also working with Fort Berthold Indian Reservation on a similar project. The Bureau of Reclamation is providing them with water intake structures from Lake Sakakawea (one of the reservoirs created by Pick-Sloan). They want us to assist them developing a plan to distribute this high quality water to their rangeland. Improved range management is a part of this project.
- b. In the past couple of years we have written supplements for two watershed plans. One of these supplements deleted channels and brought the planned dam under current NEPA rules. The other added recreation to the final dam and also brought the project up to current NEPA standards. Both of these plans were written in the late 60's early 70's.
- c. We have another watershed where we are also deleting many miles of channel work. The sponsors want some form of flood protection in place of the channel. We are developing alternatives that would store water (not only flood water) in several varying sized pools fit wildlife. We are going to have to rely heavily on the environmental account to make this project feasible since many of the benefits are going to be to wildlife and will be hard place a value on.
- d. We finishing a project in the southeast part of the state that will provide flood benefits to ag land and a city. This project will provide flood protection to the 10 year storm by using a system of constructed dikes and existing legal drains. The final plan is to be published this summer.
- e. Expected projects - EWP - Red River Valley

G. Wyoming

- 1. One PL-566 potential watershed in review.
- 2. Another requested with water quality and flooding as the objectives. They are working with the FS, BLM, Tribes, State, County, City, District, and several environmental groups as well as irrigation groups, landowners, and stockgrowers.
- 3. Did seven sessions on basic FOCS training for the field offices.
- 4. Selected as field service center facilitator and will begin training this summer.
- 5. Did a one day workshop in the field on the conversion of sprinklers from high pressure to low - economic portion.

III. What can the Resource Economics and Social Sciences Division do to help us do a better job.

- A. Finalize and send out the Economic Handbooks for Watershed Planning and Conservation Planning.
- B. Continue to search out and distribute timely economic information and tools through the institutes that apply to NRCS activities.

IV. Vision for the future role of the Economist in NRCS

Jerry Schaefer - I believe that Economics is an applied discipline. The best way that I can incorporate Economics into NRCS programs and activities is to be actively involved in those activities. I try to network with all my peers on the state staff looking for opportunities to be a part of their training programs. I also try to be involved in the mainstream programs of NRCS as a way to get my foot in the door so I can get the Economic stuff incorporated into those programs.

South Central Region Presentation Economics Core Team Report

Ted Kuntz began the presentation with an overview of regional communication and activities. James Featherston led a general discussion on how to measure environmental benefits.

Ted Kuntz - Economist, OK

Communication:

The South Central Regional Economists have met twice. The first meeting was during a discipline teams training session in Fort Worth. The second meeting was in a Central Location for the purpose of preparing the economics portion of RTB Business Plan. We plan to have one face-to-face meeting each year.

We also have monthly or as needed teleconferences.

For email, we use a List Server which allows easy email exchange between all economists in the South Central Region.

Activities:

The South Central Regional Economics Core Team have developed the Economics Portion of RTB Business Plan and are coordinating cost data in the FOCS Economics Tool across state lines.

South Central Economists have been sharing Information across state lines such as:

- (1) Information from Arkansas Irrigation Studies;
- (2) GLA Data and Training Materials; and
- (3) CRP practice cost information.

James Featherston - Economist, TX

James discussed the following report and asked Economists for feedback.

Identifying and Quantifying the Monetary Value of Environmental Benefits as the Result of Implementing the Environmental Quality Incentives Program (EQIP)

Forward

Pursuant to Executive Order 12866, Regulatory Planning and Review, the Natural Resources Conservation Service has conducted a benefit cost analysis of the Environmental Quality Incentives Program (EQIP) as formulated for the final rule. The analysis estimates EQIP will have a beneficial impact on the adoption of conservation measures and, when installed or applied to technical standards, will increase net farm income. In addition, benefits would accrue to society for long-term productivity maintenance of the resource base, non-point source pollution damage reductions, and wildlife habitat enhancement.

In considering the legislative intent of EQIP, to maximize environmental benefits per dollar expended, efforts were undertaken to quantify environmental benefits and costs attributable to the adoption and implementation of conservation measures. However, attempts to access documented data that placed a dollar value on environmental benefits (on-site and off-site) proved to be difficult due to unavailability or obscurity of the data.

Many programs administered by USDA have been scrutinized in order to evaluate the programs' successes and shortcomings. Because the legislative intent of EQIP is to maximize environmental benefits per dollar expended, it is likely that similar evaluations will be proposed for EQIP in order to evaluate the progress of the program in fulfilling its intent. Without quantitative data supporting a dollar value of expected environmental benefits, supporting data that EQIP is maximizing environmental benefits per dollar expended will be difficult to realize.

Efforts to identify potential sources of data or to quantify environmental benefits where data is not available should be undertaken in order to support internal agency as well as external reviews.

Background

The Federal Agriculture Improvement and Reform Act of 1996 (FAIRA) (Pub. Law 104-127, April 4, 1996) amended the Food Security Act of 1985 (16 U.S.C. 3801 et seq.) to re-authorize the Environmental Conservation Acreage Reserve Program (ECARP) as the umbrella conservation program encompassing the Conservation Reserve Program (CRP) (16 U.S.C. 3831-3836), the Wetlands Reserve Program (WRP) (16 U.S.C. 3837 et seq.), and the newly created Environmental Quality Incentives Program (EQIP) (16 U.S.C. 3840). Both WRP and CRP are to be implemented through the acquisition of easements, while EQIP will be implemented through contracts with landowners and operators.

EQIP will assist owners and operators of farms and ranches to conserve and enhance soil, water, and related resources, including grazing land, wetland, and wildlife habitat. EQIP is a voluntary program providing cost sharing, incentive payments, technical assistance, and educational assistance to producers who adopt conservation systems that protect and improve the quality of natural resources. Because it is a voluntary program, EQIP will not impose any obligation or burden upon agricultural producers that choose not to participate.

The Secretary of Agriculture, in a memorandum of April 25, 1996, designated the lead responsibility for the administration of EQIP to the Natural Resources Conservation Service (NRCS). Implementation of EQIP is to be carried out in a participatory process with the Farm Service Agency and others, with roles and responsibilities as outlined in the Secretary's memorandum.

Using national and state guidance, local work groups, under the leadership of local conservation districts, will develop conservation needs assessments of the natural resource conditions in a locality. Using the needs assessments, the local work groups will develop proposals for priority areas, suggest ranking criteria to be used to prioritize producers' applications for EQIP, and make program policy recommendations.

EQIP combines into a single program the functions of four previous incentive-based programs: the Agricultural Conservation Program (ACP), the Great Plains Conservation Program (GPCP), the Water Quality Incentives Program (WQIP), and the Colorado River Salinity Control Program (CRSCP).

Pursuant to Executive Order 12866, Regulatory Planning and Review, NRCS conducted a benefit cost analysis of EQIP as formulated for the final rule. In considering alternatives for implementing EQIP, USDA followed the legislative intent to maximize environmental benefits per dollar expended, address natural resource problems and concerns, establish an open participatory process that emphasizes priority areas, and provide flexible assistance to producers who apply appropriate conservation measures which enable Federal and State environmental requirements to be satisfied.

For fiscal year 1996, \$130 million was available to administer an interim program; a minimum of \$200 million is to be made available for each of fiscal years 1997 through 2002. Fifty percent of the funding available for the program will be targeted at practices relating to livestock production.

Negative Externalities

In U.S. agriculture there are various situations where production processes result in off-site impacts that impose costs on other parties and where the other parties have no recourse, i.e., negative externalities are created (Crutchfield et. al, 1983; Hrubovcak et. al, 1995). These externalities generally involve pollutants classified as non-point source such as where the water leaving a watershed contains sediment, animal waste, chemicals, and salts, etc. that reduces the value of water down stream, or where the burning of crop residue results in lower air quality for neighboring residential areas.

These externalities still exist despite past government programs and private technology adoption (ASAE, 1995; Letson and Gollehon, 1996; SWCS, 1995; Zinn, 1996). Examples of the externalities include: 1) erosion resulting from production of crops on highly erodible land where producers have already applied cost effective measures; 2) confined livestock waste runoff from operations not covered by regulations; 3) application of chemicals and nutrients in areas with groundwater that is both vulnerable to leaching and highly valued by non-farm users; and 4) riparian area degradation by livestock management.

The off-farm costs resulting from agricultural activities that are imposed on others can be corrected with tax, subsidy, and regulatory methods designed to bring the damage into private benefit cost considerations (Oates, 1992). Society has been willing to pay the cost of the externalities via producer cost sharing in exchange for lower cost food technologies (Crutchfield et. al 1993).

The 1995 Farm Bill debate, and other recent legislative debates, indicate that, politically, a strict regulatory solution is not feasible. The nature of non-point source pollutants also rules out the possibility of private legal or negotiated settlements between involved parties. Voluntary cost sharing programs make the externality internal to the producer's decisions, but compensate him for the cost of correction (Malik and Shoemaker, 1993).

EQIP continues the non-regulatory approach of past USDA programs in providing assistance on a voluntary basis to the producers sufficient to enable them to bear the costs of correcting for the externalities. Examples include: 1) changing the timing or method of chemical, nutrient, or tillage applications; 2) structural development to correct runoff problems; 3) confined livestock waste management facilities; and 4) livestock management expense to protect riparian zones and other sensitive areas.

Status

The cause and effect relationships between conservation practices and non-point source pollutants in general depend upon:

- a) the nature of the contaminant or environmental stressor under study;
- b) the mechanisms of pollutant detachment/transport and channels of delivery to receiving water bodies and other affected natural resources;
- c) time lags between perturbations to the natural system and manifested environmental problems;
- d) the nature, extent and system level effects of implemented conservation practices/systems of practices;
- e) the site specific conditions derived from inherent physical, biological and chemical processes in conjunction with the sites weather and climate and native flora and fauna;
- f) the spatial linkage to other sites/sources of pollutants and ecosystem level functioning of an individual site within the larger scale environment which in combination leads to manifested environmental degradation, i.e., non-point source pollution by definition manifests as the cumulative effect of diffused sources being acted upon by distinct processes of land management.

A publication by the Environmental Protection Agency (EPA) contains an excellent compendium of research findings regarding conservation practice effectiveness. Table I contains a summary of these research findings.

Table 1. Relative Gross Effectiveness of Various Practices (Pennsylvania State University, 1992)

Practice	<u>Total</u>			
	<u>Phosphorous</u>	<u>Nitrogen</u>	<u>Sediment</u>	<u>Fecal Coliform</u>
	----- (Percent Reduced in Runoff) -----			
Reduced Tillage	45	55	75	NA
Diversions	30	10	35	NA
Terraces	70	20	85	NA
Filter Strips	75	70	65	55
Animal Waste Systems	90	80	60	85
Waste Storage Structures	60	65	70	90
Nutrient Management	35	15	NA	NA
Sediment Basin	NA	NA	87	NA
Placing Straw in Furrows	NA	NA	50	NA

Source: EPA Guidance Specifying Management Measures For Sources of Nonpoint Pollution In Coastal Waters, 840-B-92-002, January, 1993

Off-Site

Effective soil conservation, nutrient and pesticide management, animal waste storage and management, proper grazing use, wetlands protection, and forest management on private lands all help reduce off-site damages to water and air quality. The off-site conservation benefits associated with improved water quality include:

- Enhanced freshwater and marine fishing;
- Improved swimming and boating opportunities;
- Reduction in the loss of water storage capacity in reservoirs;
- Savings in navigation dredging costs;
- Reduced flood damages;
- Diminished drainage ditch and irrigation sediment removal costs; and
- Savings in municipal water treatment costs.

On-Site

Numerous benefits will accrue to landowners and society in the form of on-site effects summarized in the following list. Note that a given conservation practice or system of practices will not necessarily be associated with each of the following beneficial effects:

Producers

- Reduced machinery use, wear, and maintenance because fewer trips are needed across the field,
- Reduced labor requirements because fewer trips are needed across the field,
- Reduced time spent in seed bed preparation (allowing greater acreage to be planted and more timely planting or investment in improved quality of life),
- Reduced fuel consumption because of fewer trips through the field,

- Lower horsepower requirements for machinery (conservation tillage requires smaller and less-expensive machinery),
- Increased soil moisture resulting in higher crop yields (Surface residues insulate the soil surface, lowering soil temperatures and reducing evaporation and runoff. This allows production to continue during droughts and allows shallow roots to take up nutrients and water.)
- Reduced soil loss from water and wind erosion (crop residues protect the soil from wind and water action) allows for longer-term production without the need for fertilizers.
- Improved water infiltration making more water available to plants (crop residues slow runoff.)
- Increased organic matter providing nutrients to plants and strengthening soil structure (prevents erosion and requires fewer nutrient applications.)
- Decreased soil compaction due to machinery reduces erosion and runoff (reduced weight and horsepower requirements of machinery minimize compaction.)
- Reduced application of inorganic fertilizer (proper application of manures provides N, P, and K that partially address crop requirements.)
- Improved soil tilth (no-till increases the soil particle aggregation [soil clumps] making it easier for water to move through the soil and allow plants to use less energy to establish roots.)
- Reduced fertilizer use (the soil-building crops decrease the amount of fertilizer that has to be applied to the soil-depleting crops later in the rotation.)
- Reduced pesticide applications (rotations can disrupt weed, disease, and insect cycles.)
Decreased risk of disease or insect epidemics (which occur in a continuous monoculture cropping system.)
- Reduced need for fertilizer use (cover crops fix nitrogen in the soil and contribute organic material)
- Added income for cover crops that can be marketed.
- Forage supply for cover crops that can serve as forage.
- Reduced gully formation thereby increasing yields and reducing equipment damage.

Society

- Shelter and food for wildlife.
- In addition, the conservation measures can reduce the release of carbon gases contributing to the "greenhouse" effect (crop residues hold carbon in the soil) and air pollution caused by machinery use will be reduced.
- Reducing soil erosion and sedimentation contributes to ecological health by making ecosystems more diverse, more resilient to adverse shocks, and more resistant to changes.
- Improving animal waste storage and management enables the ecosystem to avoid risks of contaminants entering surface rivers, lakes, and streams as well as groundwater aquifers.

Concerns

In the past, many programs administered by USDA have been scrutinized in order to evaluate the programs successes and shortcomings. Some examples include the GPCP evaluation, CRP studies, Conservation Technical Assistance (CTA) analysis, etc. Because the legislative intent of EQIP is to maximize environmental benefits per dollar expended, there is probability that similar

evaluations will be proposed for EQIP in order to evaluate the progress of the program in fulfilling its intent.

Recently, a team of NRCS headquarters and state economists conducted a benefit cost analysis of EQIP as formulated for the final rule. Based on previous federal and state programs as well as computer simulation models, the analysis attempted to identify and quantify expected physical and monetary benefits and costs (on-site and off-site) as the result of implementing conservation practices and systems through EQIP. It was found that a wealth of information is available concerning on-site and off-site physical effects of conservation implementation to enhance and preserve natural resources. Also, data is accessible, to a degree, regarding costs, both private and public, incurred to meet conservation goals.

However, the team had great difficulty accessing documented data that placed a dollar value on environmental benefits (on-site and off-site) attributable to the adoption of conservation measures. Such benefits would definitely be in the best interest of the public, and arguments have been made and proven that public cost sharing provided to agricultural producers provides a positive economic effect for the public in general.

In order to support internal agency as well as external reviews, data describing the full environmental effects of EQIP will eventually be required. Without quantitative data supporting a dollar value of expected environmental benefits, supporting data that EQIP is maximizing environmental benefits per dollar expended will be difficult to realize.

Recommendation

Considering the apparent lack of information or its whereabouts, it is suggested that the aforementioned concerns be addressed by any one of the following or combinations thereof:

- a) NRCS Institutes (Social Sciences, Watershed Science, etc.);
- b) An NRCS national team made up of interdisciplinary professionals (eg. agricultural economists, environmental engineers, water quality specialists, etc.);
- c) An interagency team composed of interdisciplinary professionals;
- d) Universities, research institutes, etc. through cooperative agreements.

It would be imperative that economists take a substantial role in such an effort, especially in instances where economists are not on staff (eg. Watershed Science Institute). It could be that data relating to the dollar value of environmental benefits is currently available, and that the efforts of the EQIP team were curtailed due to the limited time the team had to work on the analysis. Should such information be available, sources need to be identified for future reference. In the event such information is lacking or unknown, efforts to resolve these inadequacies need to be commenced as soon as possible.

Impacts

Adopting this recommendation will allow NRCS to timely develop and/or obtain economic information on the environmental benefits resulting from the implementation of conservation practices and systems with EQIP funds. NRCS has a legal requirement and a responsibility to its partners, the Office of Management and Budget, the U.S. Congress, and the public to assure that

EQIP funds are used in such a way as to maximize environmental benefits per dollar expended. In future reviews, the agency will likely be asked for documented data that demonstrates how EQIP funds were properly expended. Initiating an effort to collect, analyze, and publish the economic information now will allow the agency to timely respond when the reviews occur. Having this information available will also strengthen efforts by our partners to assure future funding for EQIP.

Cost Estimate

The following is an attempt to estimate costs that would be incurred to address the aforementioned concerns from an NRCS national interdisciplinary team approach.

Assumption: One person would be assigned full-time responsibilities to address the concerns. The assignment would last a minimum of one year. This person would coordinate team activities, including interaction with other agencies, universities, research institutes, etc. Other team members would provide support as assigned.

Salary, 1 FTE, GM13/14 rate -	\$75,000
Travel, Meetings, Conferences -	\$25,000
Other Travel (team members, support personnel) -	\$25,000
Equipment (computer, phone, FAX machine, etc.) -	\$20,000
Moneys for Cooperative Agreements, etc. -	\$50,000
Miscellaneous (teleconferences, etc.) -	<u>\$5,000</u>
Total -	\$200,000

Bibliography

ASAE. 1995. "Clean Water - Clean Environment - 21st Century." Conference Proceedings. American Society of Agric. Eng., St. Joseph, Michigan.

Crutchfield, Steve, LeRoy Hansen, and Marc Ribaud. July. 1993. "Agricultural and Water-Quality Conflicts. Economic Dimensions of the Problem." Economic Research Service, USDA, Agric. Info. Bull. No. 676.

Hrubovcak, James, Michael LeBlanc, and B. Kelly Eakin. 1995. "Accounting for the Environment in Agriculture." Economic Research Service, USDA, Tech. Bull. No. 1847.

Letson, David and Noel Gollehon. 1996. "Confined Animal Production and the Manure Problem." CHOICES, Third Quarter, p. 18-24.

Malik, Arun S. and Robbin A. Shoemaker. 1993. "Optimal Cost-Sharing Programs to Reduce Agricultural Pollution." Resources and Technology Div., Economic Research Service, USDA, Tech. Bull. No. 1820.

Oates, Wallace E. 1992. "Economics of the Environment". Edward Elgar Publishing Limited, Brookfield, Vermont.

Soil and Water Conservation Society. 1995. "When Conservation Reserve Program Contracts Expire: The Policy Options." Conference Proceedings. Soil and Water Conservation Society, Ankeny, Iowa.

U.S. Environmental Protection Agency. January 1993. Office of Water. Guidance Specifying Management Measures for Sources of Non-point Pollution in Coastal Waters. EPA-840-B-93-001c.

Zinn, Jeffrey A. 1996. "Congress and Farm Policy During 1995: Strong Start but no End in Sight." Guest Editorial. J. Soil and Water Cons. 51(2):103-106.

Southeast Region Presentation

Glynda Clardy and Curt Hobbs summarized communications activities and concerns of the region.

Glynda Clardy - Economist, MS

- Informal networking system in place in the southeast , emphasis on technical assistance
- Economists created and shared their skills matrix
- Economists regularly use ECONNECT, email, internet, and teleconferences to communicate

Curtis Hobbs - Economist, SC

- Concerns For NRCS Leadership To Address So We Can Do Our Jobs by Economists In The Southeast Region
 1. Need guidance in defining our role in new agency programs and activities to better use our disciplinary expertise to assist new customers
 2. Development of policy and/or models which address resource concerns without considering economic or social implications
 3. Reorganization seems to have pushed economists and economic considerations to the back burner. There is a conspicuous lack of an economic presence among the following entities:
 - Watershed Science, Wetlands Science, And Grazing Lands Technology Institutes
 - Geo-Spatial Databases Branch Of The National Cartography And Geo-Spatial Center
 - Cooperating Scientists
 - And Regional Offices
 4. Need guidance in navigating the administrative process of watershed plan approval now that the most visible step has been removed
 5. Need a defined method of quality assurance for our products, however, the economics discipline is not represented on oversight and evaluation teams at the regional offices
 6. There is no provision for general technical assistance as a Regional responsibility. The two regional leadership teams in the Southeast region [with economists] address conservation planning and water quality.
 7. Need required economics training for non-economists at national, regional, state and field levels to improve understanding of the link between economics and conservation
 8. Need more training for economists. Opportunities for Professional development seem scarce for economic titles in the NEDs brochures.

9. Where are the new economics and social science recruits?

10. Potential career advancement for economists has been complicated by elimination of the NTCs. We need information and guidance about moving onward and upward, possibly between series.

11. We still need access to reference materials in traditional Format. The tendency has been to refer us to the internet.

West Region¹ Presentation

June Grabemeyer, Economist, Washington

The following points summarize June's presentation.

- West Economists use monthly teleconferences to communicate
- Work activities in West includes FOCS, EQIP, WRP, F.O.T.G., watershed work, farmbill work, EWP, fire damage
- Summary presentation on the Potential for Fire Prevention Benefits (request material/maps from Madelene Bruun)
- The following concerns were expressed by Economists in the West:
 - ◇ providing adequate economic assistance
 - ◇ maintaining staff/expertise in economics
 - ◇ training program
 - ◇ development of specialists
 - ◇ promoting the use of economics in all programs

¹ The Regional Conservationist designated Phillip Nelson, State Conservationist, UT to serve as the discipline sponsor for economics in the West region. Economists work with their sponsor to identify and resolve problems. Similarly, the sponsor works with his counterparts to ensure economic concerns and issues are heard and addressed.

Social Sciences Institute

Presented by Kevin Boyle, Economist

My notes can be summarized as follows:

Is NRCS going to get more economists? Is the government going to grow bigger or smaller? The likely answers are no and smaller.

What does that mean for economists? They'll have to do more with less (like everyone else in the government). How do you go about doing more with less?

Answers from the group

- 1) carry out a strategic plan
- 2) prioritize work
- 3) find ways to work more efficiently
- 4) please your boss
- 5) say no to more work assignments
- 6) forge new partnerships and support groups to assist you

The SSI Institute has been working on helping people do more with less by developing automated conservation planning and analysis tools and designing some better work processes. About two minutes were used to demonstrate the Conservation Points builder, a tool that automates the CRP, EQIP, WRP and other custom cost programs. This was an example of a tool that allows planners do considerably more work in less time.

Thanks

kb

Natural Resources Inventory and Analysis Institute

Presented by David Buland, Economist

Status of CARE

The Cost and Return Estimator (CARE) program will be maintained and distributed by the Natural Resources Inventory and Analysis Institute (NRIAI) at Blackland Research Center, Temple, TX. The program, sample datasets, RCA datasets for each state, and source code is available from <ftp://brcsun0.tamu.edu/pub/care/> via ftp or any WEB browser. Please contact David Buland, 817-770-6522, buland@brcsun0.tamu.edu for additional information.

Data Sources

David Buland, NRIAI, has a multitude of database sources available. Please use him when looking for national or regional data not easily available. In particular, David has easy query capability on NRI, Census, Ag. Census, NASS, CRP, state CARE budgets, and EPIC datasets.

Status of IMPLAN

The IMPLAN regional input-output model is available with trained NRCS users in each region. It is recommended for use in any PL-566 watershed plans. The new Windows Program is quick and simple to use. NRIAI has purchased a site license for all 50 state models and can obtain any county model as needed. Please contact Kevin Boyle, SSI, or David Buland, NRIAI, for more information.

IMPLAN Case Study: Use of IMPLAN data and model for estimating , Regional Impacts for the Turkey Creek Watershed, NE-KS

This report summarizes the use of IMPLANⁱ to calculate regional economic benefits for the recommended alternative for the Turkey Creek Watershed Plan. Since the proposed project would be paid primarily from state and watershed district funds from outside the watershed, Pawnee Co., Nebraska and Nemaha Co., Kansas were used as the IMPLAN area.ⁱⁱ The regional effects were developed from the project construction and the NEDⁱⁱⁱ analysis.

The project construction expenditures of \$5.6 million for the five large and 70 small dams would create 73 person-years of construction employment directly, and another 40 person-years of employment as the funds circulate through the two county region. The \$5.6 million in construction would leave \$3.7 million dollars of Value-Added^{iv} within the watershed.

The NED flood damage reduction benefits of \$529,100 were modeled as increased income for medium income households^v. This would create another \$260,000 of spending, 5.3 additional permanent jobs, and \$153,500 of additional annual value-added in the local counties. The NED

recreational benefit of \$24,400 was calculated from the P&G tables^{vi} at \$4.52 each^{vii} for the 5,400 visitor days. Awaiting better information, this impact was calculated with \$20 per day expenditures divided between \$10 retail purchases and \$10 of eating and drinking. This \$108,000 annual expenditures creates 4 jobs and \$75,000 in local value-added annually. Better recreation expenditure information will be used in the final analysis.

The National Economic Development Account (NED) has average annual effects of:

National Economic Development Account(NED)

Beneficial Effects	\$	Adverse Effects	\$
Reduced Flood Damage	529,100	AA Installation Costs ^{viii}	125,200
NED Recreation	24,400	OM&R Costs	47,000
Totals	553,500		172,200
Net NED	381,300		

The Regional Economic Development Account (RED) has average annual effects of:

Within Pawnee and Nemaha Counties Regional Economic Development Account

Beneficial Effects	\$	Adverse Effects	\$
NED Reduced Flood Damage	529,100		
Local value-added from NED Reduced Flood Dam	153,500	AA Landrights Costs ^{ix}	7,200
NED Recreation	24,400		
Local value-added from Recreation expenditures	75,000		
Annualized Local Value-added from Construction Expenditures	102,000		
Totals	884,000		7,200
Net Local RED	876,800		

Rest of United States Regional Economic Development Account

Beneficial Effects	\$	Adverse Effects	\$
		AA Other Installation Costs	118,000
		OM&R Costs	47,000
Totals	0		165,000
		P&G Adjustment Factor ^x	330,500
Net Rest of US RED			495,500

NOTES:

ⁱ IMPLAN (Impact Analysis for PLANning) was originally developed by the USDA Forest Service in the mid-70s. The current IMPLAN input-output database and model is maintained and sold by MIG, Inc. (Minnesota IMPLAN Group). The Natural Resources Inventory and Analysis (NRIAI) and Social Sciences (SSI) Institutes are supporting development of IMPLAN within NRCS. NRIAI has the data and a NRCS site license for all 50 state models, and can obtain county models upon demand within a day.

ⁱⁱ In most older PL-566 projects, the Federal Government pays most of the cost. In this project, most of the cost is borne by the Nebraska Natural Resources Commission and Nemaha Natural Resources District. This study area was designed to separate the benefited area (local watershed) from the outside cost bearing area. The watershed also crossed the state line. In most PL-566 studies, the local region for IMPLAN analysis would be the state. Using state instead of county IMPLAN regions would provide large multipliers, since there would be less leakage outside a larger region.

ⁱⁱⁱ NED is National Economic Development as defined in P&G. RED is Regional Economic Development as defined in P&G.

^{iv} Value-added is payments made by industry to workers, interest, profits and indirect business taxes. These can all be considered as net benefits to a local area, similar to NEDA benefits. Total expenditures or sales also include payments for imports and other fund flows outside the region.

^v The reduced flood and sedimentation damages to agriculture result in little change in normal agricultural expenditures. If a cornfield is flooded out; most land, labor, and input costs have already occurred. The gain is primarily in increased farm income. Likewise, reductions in road and bridge damage should ultimately be reflected in lower tax rates, thus higher personal income. This approach cleanly allows the IMPLAN value-added figures to be added to the NED benefits for RED benefits.

^{vi} P&G refers to Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies, 1983, the guidelines for NRCS, USACA and TVA water resource economic analysis. These guidelines are also consistent with Circular A-94 for OMB analysis of federal projects.

^{vii} The default method for estimating recreational benefits uses consumer surplus work done in the early 70s to develop a table estimating NED recreational benefits by user day by type and quality of the recreational opportunity. This is used in lieu of better localized information using the travel cost method or contingent valuation methodology. This 1983 table is indexed by CPI to current dollars. These benefits seem conservative when compared with other methods.

^{viii} Installation Costs annualized at 0% interest for 50 years, according to Nebraska Water Resources Board guidelines. The projects are evaluated on a Internal Rate of Return basis, not the Maximize Net Benefits internal criteria for NED determination or the Benefit/Cost ratio.

^{ix} Landrights are donated by the local landowner. Maintenance costs are the responsibility of the large Nemaha Natural Resources District.

^x P&G requires that the Local RED plus the Rest of US RED = the NED benefits. An adjustment factor is added to the rest of the US account to make the accounts balance. The assumption is, if this investment had been spent in a different location, then that other region would have obtained similar Regional Economic Impacts. This is why the RED accounts are useful to local decisionmakers within the region, but less so to national decisionmakers outside the region. In other NRCS projects, regional economic impact analysis has been used to drumup local and state support because of the high local benefits to costs.

Please contact Keith Sheets, NRCS, Economist, Nebraska State Office; or Dr. Constance Miller, NRCS, Management Analyst, Northern Plains Regional Office, for information on this particular study. Please contact David Buland, NRIAI, Temple, TX; or Kevin Boyle, SSI, Madison, WI; for additional information on using IMPLAN for your analysis.

TOPIC III

THE TIE THAT BINDS

- * **Frank Clearfield, Director, Social Sciences Institute**
- * **Warren Lee, Director, Watersheds and Wetlands Division**
- * **James Tatum, Acting Director, USDA Programs Outreach Division**
- * **William Hunt, State Conservationist, MN**

Social Sciences Institute - Frank Clearfield

Frank presented the Business Plan for the Social Sciences Institute, along with outreach products, equity projects, and projects under development. He gave a slide presentation that highlighted their organization chart and mission statement. Excerpts from his presentation follow:

- Components of business plan include the following:
 - ◇ meld SSI plan with agency's strategic plan
 - ◇ incorporate human factors
 - ◇ concentrate on locally led conservation planning
 - ◇ provide guidance for Farm Bill incentives program
 - ◇ rating system for limited resource farmers
 - ◇ use case studies
 - ◇ guidance on outreach
 - ◇ secondary information - geo referencing
 - ◇ social and economic benefits activities
 - ◇ ecosystem health indicators
 - ◇ interdisciplinary projects
- Products by the SSI
 - ◇ technical reports
 - ◇ tech notes
 - ◇ resource booklets
 - ◇ software
 - ◇ training packets
- Equity Projects
 - ◇ tech note on limited resource farmers
 - ◇ environmental justice
 - ◇ outreach to Asian and Hispanic groups
 - ◇ Native American consultation training

Q: Are we looking to the right place for technology transfer from the Universities - they are usually behind the real innovators who adopt technology very early in the business of farming?

A. This is a continuing challenge

Q: Traditionally most of conservation innovation has occurred on the farm. We have taken these ideas and transferred them to others, then the Universities come in and study it. By the time they say it's a good thing, those who are going to try it already have. How do we link the historical approach to what the institutes are doing?

A: As social sciences, they are trying to keep abreast of current technology. We need to be aware of what is happening, and keep up with things. We need to translate university findings into something that is useable in the field.

The following summarizes the work products of the Social Sciences Institute.

Cooperative Agreements

- The Social Sciences Institute has annual support agreements with University of Arizona, University of Wisconsin, and North Carolina A&T State University
- Cooperative Agreement with University of Wisconsin on *Precision Agriculture* designed to evaluate current marketing and implementation practices of precision agriculture as they relate to environmental affects and dissemination of the technology at the regional, state, and county level.
- Cooperative agreement on recognizing *Environmental Justice* problems and making recommendations to NRCS on dealing fairly with these issues. The agreement is with the Southern Foods Systems Education Consortium, which is composed of 1890 universities in NC, GA, AL, MS, and LA. The project will cover the following 11 Southern states-- VA, NC, SC, GA, FL, AL, MS, LA, AR, TN and TX.
- Cooperative Agreement with Army Corps of Engineers contract to develop *Cost Effectiveness software*
- Cooperative Agreement with Colorado State University to produce a *methodology for tying together economics and soil quality characteristics*.
- Cooperative Agreement with Auburn University and North Carolina State. Two reports on *Industrialization of agriculture, trends, spatial patterns and implications for field level*.
- Cooperative Agreement with the North Central Development Center. *Human dimension of ecosystem health indicators*
- Cooperative Agreement with Iowa State University. *Changes in attitudes toward wetlands: enhancement and mitigation*
- Cooperative Agreement with the University of Kentucky. *County level social information for farm bill implementation*
- Cooperative agreement with the University of Illinois for a *Case study that details the methods needed to develop the social aspects of Conservation Needs Assessment*
- Cooperative agreement with Purdue University for sabbatical for Dr. Otto Doering, Agricultural Economist, to work at NHQ on *Farm Bill issues*.
- Attachment to an existing cooperative agreement with NACD (originally signed by Dave White) to provide technical and financial assistance for the campaign, *"From the Countryside to Your Backyard."*
- Transferred money to the Earth Team for developing guidance note on the purpose and techniques for *hiring and utilizing volunteers to assist in locally led conservation efforts*.
- Provided seed money for laptop computers to test their usefulness in the field.
- *Pending Agreement with University of Wisconsin to establish high end GIS system support*

Field Office Products

Released

- * *Technical Report: Working with Asian and Hispanic Limited Resource Farmers and Ranchers.* Directed toward field office staffs.
- * Technical Note entitled, Process for Identifying Limited Resource Farmers and Ranchers
- * Publication called, *Interested in Better Wetlands?* Worked with Iowa Soil and Water Conservation District to assist in analyzing a survey of Iowian farmers regarding their likelihood of adopting practices to enhance their wetlands.
- * Released a Resource Book called, *Conducting Small Group and Focus Group Meetings.*
- * Co-Sponsored with NACD, NASCA, and the U.S. Chamber of Commerce and marketed the *Leader In You* satellite series. Distribute tapes of this series on an as-needed basis.
- * Technical Report: *Empowerment in NRCS: What Works!* Directed toward state and field office staffs.
- * Technical Reports on Industrialization of Agriculture. Two reports (1) description and set of maps that spatially illustrate locations of concentrated poultry, hog, beef, and forestry operations by county. (2) (under development) Recommendations directed to field staff on how they can effectively work with industrialized agricultural sectors.
- * SSI serves as editor of Institute Insights.

People, Partnerships, and Communities Series

SSI is in the process of developing a series, called *People, Partnerships, and Communities*. The purpose of this series is to assist the Conservation Partnership build capacity at the field level.

So far, we have completed drafts for the following 2-page guides:

Issue 1	Focus Groups
Issue 2	The Leader in You Spring '97 Seminars
Issue 3	Looking Good on Television
Issue 4	The Leader in You Training Tapes
Issue 5	Running Effective Meetings
Issue 6	Improving Listening Skills
Issue 7	Futuring: Winds of Change
Issue 8	Expanding Your Customer Base
Issue 9	Identifying Community Leaders
Issue 10	Running Public Meetings
Issue 11	Using Paired Comparison for Priority Setting
Issue 12	Managing Conflict
Issue 13	Dealing with Difficult People

Under this series, the SSI will provide guidance for an assortment of general topics; the number in parentheses is the number of issues we are planning under each topic: community information (9), effective meetings (3), conflict management (2), information gathering strategies (3), recognizing and coping with cultural differences (1), and communications (7).

Assisted

- ◇ Assisting NACD conduct a survey related to the project -- From the Countryside to your Backyard
- ◇ Assisting the RC&D national council survey 3,000 board members for strategic planning purposes.
- ◇ Assisted the Earth Team evaluate the Farmer Thank You Campaign.
- ◇ Assisted 5 Conservation District in Iowa survey for 5 districts in developing their marketing plans

Under Development

- ◆ A Resource Book containing small farmer case studies.
- ◆ Women in Agriculture technical report and technical note
- ◆ Completed and soon to be released: a Technical Report on Stewardship.
- ◆ Project on determining the occurrence of Environmental Justice problems and recommendations on how NRCS can avoid future problems; Technical Note.
- ◆ A technical note on how precision agriculture operates in environmentally sensitive or degraded areas.
- ◆ The SSI is working on creating a friendly user interface for NRCS state and **field** staffs to access NRI data sets, along with socioeconomic data sets to process interactive GIS queries from SSI's World Wide Web page.
- ◆ The "County Demographer" is a simple software package that will allow **field** personnel to display, tabulate, map, & graph social and economic demographic information at the county and state level. Other development projects include tools to assess community health, and probable adoption rates.
- ◆ Human ecosystem health indicators
- ◆ *Consultation with American Indians* training course. This course is directed at field office staffs. it will be delivered FY 98
- ◆ SSI has a staff member who is on the development team for the New **Conservation Planning Course**. He is also serving as a member of the teaching cadre for this planning course. This course will be delivered to the field toward the end of this fiscal year.
- ◆ Adoption of Farm Bill Incentive Programs. Field staff will receive a poster sized matrix along with a series of fact sheets in a 3-ring binder that will analyze social and economic factors related to the adoption of farm bill incentive-based conservation programs (e.g., EQIP, WIP, WRP, CRP, etc.).

Software

The Social Sciences Institute operates a web page. The address is:
<http://www.people.nrcs.wisc.edu/socsciinstitute/>

Released a Beta version of *A Community Conservation Toolbox*. This software is a Windows-based toolbox containing the following tools:

- *Reference Viewer* - a type of dictionary/encyclopedia for viewing reference information related to natural resources or social sciences
- Field Office Technical Guide Conservation Planning Tools: *Common Resource Area, Conservation System Builder, Checklist of Resource Problems and Conditions, Conservation Management Systems (or SSPEW), Conservation Practice Physical Effects*.
- Business and Community Tools: *Cost Builder, Business Builder*
- Additional tools planned for field office use*: *Benefits Builder, Solutions/Conservation Packages Builder, Light Financial Tools, GIS Socioeconomic Case Studies* , and maybe *Survey/Rapid Rural Appraisal Builder*

(*Note: other tools are planned, but are directed more at a State Office level use.)

Economics Support on the Web: the SSI site for providing economic decision support using the Internet is temporarily located at: <http://Hranchotrabajo.nrcs.wisc.edu/insite/> ;

Watershed & Community Planning
Warren Lee, Watersheds and Wetlands Director

The following excerpts and actual notes highlight Warren's presentation.

- PL-566 Evaluation - four areas needing attention
 1. Government role in addressing structures that have reached their lifespan
 2. backlog of projects
 3. NRCS capacity to deliver planning/construction technical assistance
 4. emergency watershed program
- '96 Farm Bill gives us the option to purchase floodplain easements. Easements can be of differing intensity levels - permanent, haying & grazing, continued agricultural production.
- Many specific responsibilities for economists within the farm bill requirements
- Wildlife incentive program needs involvement of economists
- PL-566 is alive and well - use this as one of many tools for watershed planning
- Issue of too low funding to maintain watershed planning staff and expertise level
- Currently a vacancy on Warren's staff
- Need to publicize the effectiveness of PL-566 projects
- Questions
 - Q. Are we still working on the PL-566 database?
 - A. Yes

 - Q. Explain the bureaucratic channels for submitting PL-566 plans.
 - A. No technical review at NHQ. State Conservationist determines the plans technical adequacy. Regional level sets priorities for funding.
- Watershed Assistance through NRCS is authorized by the following programs or activities:
 - Small Watershed Program
 - EWP - Flood Plain
 - WRP
 - WHIP
 - Swampbuster
 - Salmon Institute
 - Heritage River
 - Water Management

- History quiz! Did you know what happened during these years?

Years

60	1937	PL - 46 Basic TA Demonstrations	
53	1944	PL - 534	
43	1954	PL - 566 Community	
27	1970	Earth Day	
25	1972	Clean Water Act	
20	1977	Executive Orders 11990, 11998	
12	1985	Erosion - Income	
7	1990	WRP	
1	1996	EQIP, WHIP, FP	April 6, 1996

- Analogy of PL-566 to a 50 year old home
 - Served us well
 - Sound in Structure
 - Needs some up dating
 - No longer any “banner” carries on the Hill (few exceptions)
 - Carries some baggage - dams and channels
 - Mandates 100% cost sharing for flood control versus 65% COE
- Status and Concerns
 - Thousands of structures needing rehabilitation
 - Now part of the watershed
 - Nearly a Billion back log awaiting funding
 - Capacity to deliver -
 - Changes in legislation/policy
 - Cost share
 - De-couple planning from operations
 - Planning starts
- Foundation of programs remains - locally led, community based
 - program neutral planning

Outreach

- Some challenges for you -

Swampbuster -

1. functions and values of wetlands
2. Mitigation banks
3. Overall mitigation flexibility - taking a watershed approach to wetlands

EWP

1. Values for flood plain easements
2. Flood Risk Reduction

WHIP

1. Selling the WHIP program to maximize benefits

PL - 566 (It is Alive and Well)

1. Prioritizing existing operational projects on a regional basis
Most economically feasible, socially acceptable, and environmentally beneficial
2. Socially disadvantaged communities
- cost/benefit ratio's

GPRA PLAN - 100 watersheds/year

Watershed planning

- pick the right tool
- keep it finely turned or sharpened
- operated by skilled craftsman

SOCIO-ECONOMIC OUTREACH OPPORTUNITIES FOR SOCIALLY DISADVANTAGED, MINORITY, AND LIMITED RESOURCE FARMERS

James Tatum, Acting Director for USDA Program Outreach Division

Good morning. Let me take this opportunity to thank the program planning committee for allowing this time on the program to share some socio-economic outreach needs of socially disadvantaged, minority and limited resource farmers.

For the past 3-months we have heard or read more about the plight and conditions of socially disadvantaged, minority and limited resource farmers than any other time in the history of the natural resources conservation service (NRCS). Is this a unique time period? Maybe not, but just a time that has come.

Socially disadvantaged, minority and limited resource farmers, many of whom experience social and/or culture isolation, create unique challenges and opportunities for NRCS. A sense of insecurity and lack of trust inhibit their participation in resource conservation programs, even though they are directly affected by land use policy changes. Many socially disadvantaged, minority and limited resource farmers are impacted negatively by the changing roles of the NRCS and by legislation covering natural resource and environment. Our existing program delivery system has been cited as providing little incentive for conservationists to work with these groups. The lack of working with these socially disadvantaged, minority and limited resource farmers may have prevented the application of many key conservation measures and program such as crop residue management, terraces, CRP, WRP, and EQIP, which are apt to be applied and participated in by large or non-socially disadvantaged, minority and limited farmers.

The full intent of my presentation, is to discuss and display the characteristics of these individuals relating to their socioeconomic outreach needs. To provide you with a better understanding of these needs, I want to share some current data by linking program participation opportunities.

WETLAND RESERVE PROGRAM (WRP), ETC...

A large amount of wetlands are located in the south and southeastern part of the United States, the same area where a large number of black farmers own and operate farms. However, only a small percentage of blacks are participating in the wetland reserve program (12 -15) at my last count. Why? I am not one to question the legislation that established such programs, but I am concerned about the agency rules and policy making process that establishes so many artificial barriers. Such as "NRCS shall place priority on acquiring easements based on the value of the easement for protecting and enhancing habitat for migratory birds and other wildlife". In so many, if not all cases, small, limited resource and socially disadvantaged farmers have small and noncontiguous farms which makes it difficult to have high value. The rule making process should have been used to establish a fair and equitable system that allows for some type of socio-economic value such, as past program participation, grouping small tracts together, and levels of farm income.

The same holds true with EQIP, locally led conservation, and other new conservation programs authorized in the 1996 farm bill. In these programs, where so many barriers exist, why didn't we make special efforts to build in some socio-economic outreach opportunities for the socially disadvantaged, minority, and limited resource farmers? Are they discounted as non-program participants? We have not made a mind shift? The lack of provisions for socially disadvantaged, minority and limited resource farmers to participate in such program can only be seen as negligent and a lack of commitment to serve non traditional groups.

In closing, let me leave with you some food for thought in the area of outreach. These ideas are grouped into broad categories of leadership, accountability, program and policies, field service center delivery system and information education.

I. LEADERSHIP

1. The agency must establish and maintain a strong national leadership and commitment for assisting socially disadvantaged, minority and limited resource farmers.
 - The chief should annually allocate resources to establish and maintain outreach offices in each state to serve socially disadvantaged, minority and limited resource farmers.
 - The agency should develop new budget initiatives in its ongoing annual budget process to bolster outreach efforts.
 - The chief should take the initiative to provide leadership to regional conservationists and deputy chiefs as they coordinate program outreach with special committee and boards, universities, and organizations that serve socially disadvantaged, minority and limited resource farmers.
2. Agency lack a strong mission/policy statement related to assisting socially disadvantaged, minority and limited resource farmers.
 - The NRCS and its conservation partners should amend its mission and policy statement to include a proactive and forceful statement that explicitly strengthens efforts to work with socially disadvantaged, minority and limited resource farmers.
 - The agency should assemble a task force or a working group to provide guidance on how to ensure socio -economics opportunities in its outreach efforts.

II. ACCOUNTABILITY

3. The lack of sufficient accountability at all level need to improve.
 - Require supervisors to amend performance standards to ensure measurable indicators in order to hold employees accountable for assistance to socially disadvantaged, minority and limited resource farmers.

4. The agency has an inadequate data base to measure workload, impacts and accomplishments for working with socially disadvantaged, minority and limited resource farmers.

- The deputy chief for management and strategic planning should develop an adequate data base system to measure workload, impact and accomplishment on working with socially disadvantaged, minority and limited resource farmers.
- The agency should conduct a statistically reliable survey or onsite meeting to determine the level of understanding of socially disadvantaged, minority and limited resource farmer on such issues as CRP, WRP ,EQIP and other recent farm bill provisions.

III. PROGRAMS AND POLICIES

5. At first glance, the agency 's internal policies may appear to be neutral, but in many cases may discriminate against socially disadvantaged, minority and limited resource farmers.

- The deputy chief should examine all policies that may have disparate impact on socially disadvantaged, minority and limited resource farmers

IV. FIELD OFFICE DELIVERY SYSTEM

6. There is a lack of training initiatives for field office staff who work with socially disadvantaged, minority and limited resource farmers.

- State conservationists should develop and provide proper training in their states.
- The national employee development committee should allocate resources to support training for field staff who work with socially disadvantaged, minority and limited resource farmers.

7. Their is a lack of support for innovative programs through Community-based organizations.

- Empower community-based organizations such as The Arkansas Land And Farm Development Corporation, Fargo, Arkansas, to coordinate programs that reach out to socially disadvantaged, minority and limited resource farmers.
- The agency should provide leadership and support for an integrated resource planning approach that includes soil, water, woodlands, livestock, aquaculture, and alternative farm enterprise through pilot demonstration projects that involve socially disadvantaged, minority and limited resource farmers.

V. INFORMATION/EDUCATION

8. The agency 's "marketing initiative" needs to better address the concerns of socially disadvantaged, minority and limited resource farmers.

- The agency 's marketing plan should be amended to include the needs and concerns of socially disadvantaged, minority and limited resource farmers.

William Hunt, State Conservationist, Minnesota

Following are my comments on the recent "Defining the Role of Economics" STC Panel (with Dawn Genes, STC, New Hampshire), at Nashville, TN, on March 26.

I support and concur with the comments made earlier by Dawn Genes, State Conservationist from New Hampshire, in terms of what she sees as needs for the economic profession and more importantly, I want it clearly understood that I totally agree with everything Chief Paul Johnson said earlier in the program!

First, let me say I appreciate the invitation to attend this session. It has been many years since I met with economists. I started out as an economist in Nevada many years ago, working on project work. Back then, the watershed program was in full bloom and economists were in big demand.

I assume that the comments you are seeking are from a state conservationist's perspective of how we see the need for economics and economists in our work.

Including the last three locations I have served in three states, the next field office request I receive for economics assistance will be my first!

The science of economics in NRCS work is very valuable. In looking over the topics on your agenda, you have lots to offer. However, you need to do a better marketing job of letting field office employees and management know what you have to offer. We need to make better use of economics in the planning process to develop better alternatives for decisions by local land users.

We have come from a time when economics occupied an entire section of the Technical Guide until now where it is relegated to one small subsection in Section I. The cost/return data now in Section I, in many instances, is not current and not kept up to date or used by field office personnel. You/we need to continually improve on this.

Many years ago we viewed economics quite frequently as the final stage in the interdisciplinary process. The economist was the final integrator of a number of technical disciplines, in those days. Cost benefit ratios were essential and important to our project and CTA work. Back then, we were continually requested to "justify justify justify".

Unfortunately, in some instances in the past, we stretched the economic benefit cost ratio beyond reasonable limits. There were some instances when the economic answer should have been "no". Instead, we stretched our "creativity" beyond its limits and created questions about the credibility of the economics profession. This was and is unfortunate, but we can recover. If management and decision makers needed to approve a project, it should have been approved on the basis of first, good science and second, on other accepted scientific values in addition to economics.

Many of you and I were asked in years past to stretch the limits of good economics. Again I encourage you today to resist the temptation to go beyond the limits of your technical expertise

and not to engage in "voodoo" economics. But again, lead and show us how to utilize economics, as one of the many sciences and technologies that needs to be capitalized on to identify the many benefits of resource conservation activities.

As professionals and as economists, you need to help us to properly utilize economics in relation to current NRCS priorities. And that includes all of our programs, not only conservation technical assistance, but EQIP, CRP, WRP, Conservation Compliance, RC&D and others. You need to be able to help us teach and show field office employees how economics can help them improve the decision-making process. This is part of your/our marketing challenge.

How will this be accomplished? It has to be accomplished with good training and higher visibility of economics at field office levels. It has to be accomplished by "hands-on" work in the field, by trained economists working with DC's and clients on a one-on-one basis. Today's economist needs to be willing to get her/his hands dirty learning and doing conservation at the grass roots level -- the field office.

My challenge to you is to show what you can do in terms of getting better information to the field -- in terms they understand and can use in delivering quality technical assistance, including a full array of economic and other alternatives to private decision makers. Economists need to be leaders and be able to demonstrate how practical economics can add value to the field office planning process.

Where do we need future economics leadership? Some of the areas include:

- * EQIP, WHIP, and WRP
- * The new technology of precision farming
- * Wetlands creation, restoration, and mitigation
- * Old technology, such as the economics of conservation tillage or crop residue management

In the future, we need to focus on the basics of economics as well as water quality and other important program objectives. We need economists to help us better provide technical assistance and alternatives to limited resource farmers.

The Civil Rights Action Team Report further identifies this need. Limited resource farmers in particular need to understand the economic impact of NRCS recommendations and their decisions because it often means a difference between a good quality of life or not meeting their basic needs.

I ask the National Civil Rights Director and Program Managers to assist state conservationists in identifying ways that we can give priority and additional emphasis to the special needs of limited resource farmers in our EQIP as well as our other on-going programs.

Finally, I ask that you, as professionals be more proactive in reminding us all of the dollars and cents "bottom line". The bottom line is still important to many producers and should be to NRCS. We want to help producers make good conservation and environmental decisions -- not drive them out of business. Good conservation economics remains one of the essential building blocks for producer and conservation program success.

Thank you.

TOPIC V

CONCURRENT INTERACTIVE WORKSHOPS

- * Grazing Lands Application (GLA) Economics**
 Ted Kuntz, OK
 James Featherston, TX
- * Training Needs & Opportunities - Hal Gordon, OR**
- * Communications - Lynn Knight, VT & Jim Hosack, MO**
- * Policy / Open Issues - Otto Doering & Cliff Dokes**

Grazing Lands Applications Demonstration

Ted Kuntz and James Featherston

The following excerpts summarize the workshop:

- Computer model uses soil science, plant science, and animal science data to determine benchmark carrying capacity. Conservation practices are applied to increase harvest, increase production, and increase carrying capacity.
- The model is data intensive (dependent) and can take up to 2 days just to input data once you have it all at your disposal. NRCS does not support DOS GLA, but does support the FOCS GLA. The DOS version is easier to use.
- Contact person for GLA - Ted Kuntz or James Featherston
- Program demonstration given.
- **Questions**

Q. How applicable is the program to northeast, small farms?

A. It is useful and applicable, but does not work on dairy farms.

Q. Is the program applicable to EQIP?

A. It is complimentary - it's a decision-making tool

Discussion on NRCS being able to support the DOS version because it's easier to use.

Training Needs and Opportunities Workshop

Presented by Hal Gordon, Economist, OR

Overview

1. Current Training Opportunities
2. Feedback on the Value of Training
3. Additional Training Opportunities
4. Emphasis to be Placed on Training
5. Recommendations (Guidance/Policy)
6. Volunteers to Implement Recommendations
7. Brief Review of Economics of Conservation Planning Course

1. Current Economic Training Opportunities (And Recommended Instructors)

Field Employee

- Economics of Conservation Planning Course
State Economists/NEDs
- Conservation Planning Course (Economic Module)
State Economists/NEDs
- Cost and Return Estimator (CARE) State Economist
- Economic Software (Agnet, Budgets, Cowcost, URB1, ECON2, Etc.)
State Economist
- Economic Modules: National Windbreak Training
Grazing Land Applications
Irrigation Management
Animal Waste Training
Intro. Water Quality
Quicksilver (Forestry), Etc.
Discipline Lead W/ Economist

Economist (Professional Development)

- Farm Management Course (ASFMRA)
- Back to School (Employee)
- Statistical Concepts and Application Course
- FOCS Training
- Conservation Planning Course
- Advanced Planning Process and Report Preparation
- Field Office Experience (Field Work, not Economics) and
Other Discipline Courses In Field of Interest

2. Feedback on the Value of Training

Training Issues:

- National Policy
- NRCS "Farm Program" Support
- Field Employee Requests
- Land User Decision Making
- Quality of Technical Assistance
- "Value Added" with Other Disciplines
- Training Evaluation - Quality Assurance
- Certification of Ability In Economics or Planning
- Identify benefits of economic training to promote additional funding for economic training
- All economic training should be practical and "hands on"

3. Additional Training Opportunities

Field Employee

- State economist provides one-on-one training to field office employees
- Cross training with FOCS-ECON database
- Long-term contracting module, economic emphasis
- Discipline courses - economic module thought with each course
- Farm Hill - training on economic issues
- Conservation marketing

Economist

- Mentor program - New employee training program and regional mentor for seasonal employees
- Cross training with other "social" scientists
- FOCS Training
- Risk assessment and management
- Resource and environmental economics
- Natural Resource Accounting System (Proposal)
- GIS and economics
- National and Regional Workshops devoted to important issues
- Computer tools workshops (Internet & economic programs)
- Methods of delivering economic products to our clients

4. Emphasis to be Placed on Training

- Priority Relative to "Other" Training
- Support for Agency Activities
- Economic Support for Farm, Field Office, State, Region, NHQ
- Training Budget
- Stick to schedules, don't cancel at mid-year.
- Balance workload with training opportunities
- Provide supplemental training when can't get full training
- Incorporate economic training (modules) with other discipline training
- Provide training relative to national priorities
- Develop opportunities for "self initiated" training, don't wait for someone else to do it for you
- Economics should not be considered "add-on" training, but should be "mainstream" training

5. Recommendations, Guidance/Policy

- Develop Employee Development Plan and Training Sequence:
 1. Introduction to NRCA
 2. Conservation for New Employees
 3. Basic Conservation Planning Course
 4. Economics of Conservation Planning Course
 5. Discipline Specific Courses (GLA, CARE, Quicksilver, Etc)(Steps 1-4 within first 2 years of employment)
- Develop "ASK" Levels for Field Employees
- Include "Economics" on State Agendas (How to get on them)
- Develop "public speaking" course for "quiet" economists
- Develop "field office" economic contacts for some economic activities
- Invite other agency specialists to economic training courses
- Institutes ask state specialists what type of training material they need assistance in developing, not developing without asking for input
- Look-in training one year in advance so training will not be canceled
- Reinvent the "old" technical note that was once so successful at the NTC'S, and route them region/nationwide
- Clearly identify "Economic Products" so others know what we are **doing**, and market those products (See the big picture)
- Do a better Job on "farm bill" economic training
- Develop system of becoming a "certified" economist/planner
- Secure economic mentor program funds for each region
- Fund the economic trainee program
- Economic trainer should be at the same location as the economic trainee

- Teach state administrators economic principles which will help them make rational economic decisions for state programs
- Ensure that economists are clearly identified in strategic plans
- Demonstrate with examples how economics benefits fit into NRCS programs
- Document "hard" products economists provide to their clients and show to administrators
- Develop a "list of services" provided by economists
- All employees receive economic training, and it is identified on their employee development plan
- Develop "add-on" economic modules for other conservation courses
- Fill vacant economic positions
- Communication/Sharing Training Material
- Economists should be integrated/multidisciplinary, not "add-on"
- Workload of former NTC Economists
- Look for the best trainers, not the most vocal

6. Volunteers (Names will be provided to RESSD Director for consideration)

- NEDs Group
- Communications Group
- Economics Handbook
- Conservation Planning
- Farm Bill
- Economic Computer Programs
- Other Economic Tools
- Soil:
- Water Resources
- Water Quality
- Air
- Crop Production
- Range
- Forestry
- Fish & Wildlife
- Animal Waste
- Other

7. Brief Review of : Economics of Conservation Planning Course

- * Philosophy:
 - State Economist Lead Instructor (NEDs if Requested)
 - Flexible Course Material to Meet Students Needs
 - Must Contain "Local" Examples Students are Familiar With
 - Must be Fun, While Teaching Economic Principles
 - Course Provides General Guidance (Not Cookbook)
- * Course Materials:
 - Instructors Notebook
 - Student Notebook
 - Case Study Farm/Ranch
 - Overheads
- * Course Development
 - NEDs Sponsored
 - Committee with Economist from each Region
 - Meet Biannually to Work on Course Material
 - Revised, Improved, Econ. of Soil & Water Con. Course
 - Three Day Course

Economics of Conservation Planning Course

Course Summary

- * Welcome, Introductions, Pretest
- * Students Inherit Farm/Ranch
 - Must Make All Economic & Conservation Decisions
 - Manage Farm For Five Years
- * Review Conservation Planning Steps
- * Teach Economic Tools
- * Student Develops Farm Plan
- * Students Evaluate Farm Plan With Economic Tools
 - "Spin the Wheel" to Randomly Select Price & Yield
 - Complete Farm Income & Expense Statement
 - Complete the Analysis Each of Five Years
 - Observe the "Economics" of Conservation Decisions
 - Demonstrate How to do "Field Economics"
 - Students Discuss "Successes and Failures" on their Farm
- * Answer Student Questions About Economics
- * Discuss "Other" Economic Tools/Resources not Used in Course
- * Post Test, Student Evaluation, Adjourn

BASIC ECONOMIC SKILLS FOR CONSERVATION PLANNERS

Economic Skill	Economics Handbook Reference	Grade & ASK* Level				
		5	7	9	11	12
A. With & without analysis	2-1	3	3	4	5	5
Price base and indexes	2-2	1	2	2	3	3
Definition of costs	2-3	2	3	3	4	4
Periods of analysis	2-4	1	2	2	3	3
Least costly alternatives	2-4	1	2	2	3	3
Diminishing return	2-4	2	3	4	5	5
Economics of scale	2-4	1	2	2	3	3
Substitution of capital for labor	2-4	1	2	2	3	3
Maximization of returns	2-6	1	2	2	3	3
Opportunity costs	2-6	2	2	3	3	4
Benefit-Cost analysis	2-6	1	1	2	2	3
Break-even points	2-8	2	3	3	4	4
Rates of return	2-8	1	1	2	2	3
Period of capital recovery	2-8	1	2	2	3	3
Annuity	3-1	2	2	3	3	4
Present value of one	3-2	1	2	3	3	3
Compound interest	3-2	3	3	4	4	4
Amortization	3-3	3	3	4	4	4
B. Knowledge of how and when to:						
Determine number of years hence	3-1	1	1	2	2	3
Use the present value of one	3-1	1	1	2	2	3
Use compound interest	3-2	3	3	4	4	4
Use amortization tables	3-3	3	3	4	4	4
Use of annuity tables	3-4,5	1	1	2	2	3
C. Collecting cost data	4-1	3	3	4	4	5
D. Preparing cost price list	4-1	3	3	4	4	5
E. Use of cost price list	4-1	3	3	4	4	5
F. Collecting yield response data	4-2	2	3	3	4	4
G. Budget Interviews	1	2	2	3	3	4
H. Analyzing crop budgets	1	1	1	2	2	3
I. Partial budgeting	7	2	3	4	4	4

Economics
Handbook
Reference

Grade & ASK* Level
5 7 9 11

12

Economic Skill

J. Cost and return estimates	6	1	2	3	3	3
Ownership cost	6.1	2	3	4	4	4
Per acre cost	6-2	2	3	4	4	4
Operating cost	6-3	2	3	4	4	4
Performance rates	6-4	2	3	4	4	4
Custom Rates	6-7	1	2	2	3	3
K. Irrigation Analysis		1	2	8	4	4
L. Dryland Analysis		1	2	3	4	4
M. Range Analysis		1	2	3	4	4
N. Forest Analysis		1	2	3	4	4
O. Animal Waste Analysis		1	2	3	4	4

*Ability, Skills & Knowledge (ASK) Levels

Aware	1
Understand	2
Perform With Supervision	3
Apply Independently	4
Proficient, Can Train Others	5

Communications Workshop
Lynn Knight and James Hosack

The following excerpts summarize the workshop:

- Background on the Communication and Discipline Leadership team was provided. The group was formed after the Davis meeting and charged with building a support network among agency economists that promote a shared vision. The group developed an action plan that complemented the Economics Strategic Plan regarding communications.
- A status update on the recommendations from the group indicated successful completion in all items:
 - Recommendations included:
 1. Conduct a benchmark assessment to determine the level of connectivity of agency economists
 2. Establish email addresses for economists and ensure access
 3. Develop an economics list server to facilitate communications among economists and related social scientists
 4. Ensure access and awareness of FTP and TELENET
 5. Ensure adequate computer equipment to communicate electronically (still underway)
 6. Economics and Social Sciences division develop a homepage
 7. Economists seek computer training to ensure efficient use of the internet
- An extensive list of internet addresses was distributed
- Recommendations on ways to update the strategic plan and continue to improve communications were gathered from the participants

**Concurrent Interactive Workshop on the
Impact of Policy on the Roles of NRCS Economists
March 27, 1997**

Otto Doering¹, Moderator

From the National Economics and Related Social Sciences Meeting in Nashville TN.

Touchstones from the Economics Discipline:

- Economists in the Public Service are dealing with Equity and Opportunity Costs in addition to issues of Efficiency. This presents a substantial challenge to continue to try to convey the message of efficiency while dealing with the public's concerns about equity and also flagging opportunity cost issues for both the public and for public servants. Few other professional economists have to cover as wide a range of concerns while responding to the professional dictates of the economics discipline in addressing efficiency questions.

The Need for Professional Support:

- A major concern is the level of professional/disciplinary support that NRCS economists have in undertaking this difficult challenge. Several areas of support were identified:
- Potential Support Groups

1. The NRCS economists from around the country/region.

This confirms the importance of good communications linkages
Working together on common challenges becomes essential as the
resources are not available to take on big tasks at any one location.
Reinforcement in professionally difficult roles becomes critical.

2. The National Resource Economics and Social Sciences staff and the Institutes

Difficulty in knowing what help is available and can be provided
Need to develop a good two way street for ideas, tools, etc.

3. Land Grant/Academic economists from local institutions

Time and effort required to develop these linkages
Historically in farm management and less in resource economics/policy
Need to identify and build relationships with the right people

¹ Otto Doering, is completing a temporary assignment with the Resource Economics and Social Sciences Staff. He is a Professor of Ag Economics/ Policy at Purdue University, West Lafayette, Indiana.

4. Economists from other agencies (state and/or federal)
Large populous states provide the best opportunity here

5. Professional Associations

SWCS meetings provide an opportunity for NRCS economists to meet
AAEA currently not much help. Can something be done?

- While this kind of professional support will be critical, the NRCS economists also have to have enough participatory experience in the field to gain the confidence of field staff from other specialties. There is not a built in support group at the state level for economists.
- Questions raised include:
 - What about a career track for economists?
 - Can there be training and conferences annually, at least regionally?
 - Can we rebuild a mentoring program?
 - Given the many new responsibilities under the Farm Bill, what can be dropped from our already full plates? Some other services we do?
- The Impact of the New Legislation:
 - The new Farm Act places explicit emphasis upon economics for the first time in the history of these programs. Terms like 'cost effective' and 'maximizing environmental benefits per dollar expended' appear in the legislation to specifically guide program implementation and evaluation. The key message is that the NRCS economists must be involved in many aspects of the new programs to contribute to the agency's implementation and evaluation of these programs to maintain the intent of congress.
 - As an example, looking at the new EQIP program is among the many things that NRCS economists need to be involved. As well, become involved in the following:
 1. setting of criteria for the program,
 2. considering the cost effectiveness of priorities as they are set,
 3. considering the cost effectiveness of implementation measures beforehand,
 4. assessing the trade-offs between allocations within the state, and 5.
 - evaluating the outputs/accomplishments.
 - The task of maximizing environmental benefits will require the NRCS economists to work on how to approximate these benefits, separate the different programs' benefits, determine the relative values of joint and single outputs or products, and somehow be able to value the product (should this be average or marginal value?)
 - As we look just at the EQIP program, it will clearly be a necessity to work with colleagues to sort through these essential tasks. Other policies and programs like the Clean Water Act and the Coastal Zone act will have big impacts on what we do. We need to keep track of them as well as keeping track of the evolving

structure of the industry, market distortions, externalities, important regional issues, etc. In a sense the NRCS economists have to do both micro and macro-economics at the same time.

- Critical Roles for Economists:
 - The group identified critical roles for NRCS economists that go beyond the more narrow expectation of their professional training. The group believes that these are essential roles for NRCS economists to play to ensure the effectiveness of their professional efforts::
 1. As economic Educators
 2. As the one who balances the interests of different groups
 3. As an integrator of the different disciplines and skill brought to a problem
 4. As the creator/arbiter of valuation and cost setting
 5. As the one who ensures consistency (in approach and analysis)
 6. As a marketer of integrated NRCS programs

CLOSING

- * Michael Johnson, Anthropologist, AZ
Luncheon Speaker - March 27, 1997**
- * Jerry Hammond, Director, International Programs Division
Close Out - March 27, 1997**

Anthropological Praxis in the USDA Natural Resource Conservation Service

by

Michael Johnson
NRCS Social Sciences Institute
University of Arizona

Introduction

When I was asked to speak¹ about the practice of anthropology in the Natural Resources Conservation Service, I decided to take the opportunity to try and answer a couple of questions that I am regularly asked. These questions are: “What is an anthropologist?”, and, “What good are you”?

To that end, this presentation will cover some basic concepts and ideas about anthropological work. These are (in no particular order): What is anthropology? What do anthropologists do? What is an anthropologist doing working for the NRCS?

In order to answer these questions, I will attempt to define anthropology and describe what anthropologists do, and I will speak briefly about some of the work that I am currently engaged in.

What is Anthropology?

Anthropology is an extraordinarily broad discipline covering a vast range of subjects. This, I realize, is a rather broad definition. It occurred to me as I was preparing this presentation that it might be simpler to define what anthropologists **DO NOT** do.

A couple of reasonably popular movies have romanticized anthropologists and their work. This has led to a number of misconceptions about anthropologists.

- Anthropologists do not study dinosaurs. Those guys are paleontologists.
- Anthropologists rarely, if ever, wear fedoras and carry bull whips, at least in public.
- Anthropologists rarely, if ever, get to collect giant apes from isolated islands.

Anthropology, like virtually everything else, is not like it gets portrayed in the movies. Most of the time, anthropology is the systematic collection and analysis of information, and yes, it can be pretty darn boring. As with any science that deals with humans, however, there appears to be an endless variety of material to work with.

¹- Paper presented at the NRCS National Economics and Related Social Sciences Meeting, Nashville, Tennessee, March 24-27, 1997.

Formally, anthropology is defined as:

Anthropology: The scientific study of the origin and of the physical, social, and cultural development and behavior of humans (Morris 1969:56).

There are four generally recognized sub-fields of anthropology; physical anthropology, cultural anthropology (ethnography), archaeology, and linguistics. Physical anthropologists study the physical development of humans through time, as well as variation among modern human populations. Cultural anthropologists seek to understand cultural variations among living peoples. Archaeologists study the development of human cultural, environmental, and social adaptations through time. Linguists study human language. The common theme with all of these four subfields is that all are oriented toward things human. Anthropologists always work with things that are connected, directly, or indirectly, to humans, their development, and their behavior.

What do Anthropologists Do?

Anthropology, it has been said, is what anthropologists do. I admit to being fond of this definition, since it usually does away with any further discussion, and I can go on about my business with no further intrusions. There are also certain advantages to this approach. Anthropologists enjoy being somewhat mysterious, and if no one really knows what you do, then you can get away with a great deal. In the interests of (for a change) being straight-forward, I will make an honest attempt to define and explain my discipline.

Most social sciences (such as psychology) tend to focus on one aspect of human behavior. Anthropologists strive to “see to the whole”, or perceive cultures holistically. This means that anthropologists usually have to immerse themselves in whatever culture they are studying. The reasons for this are many, but can be traced to a basic premise that underlies virtually all anthropological inquiry. This premise, called cultural relativity, simply states that the values of one culture cannot be used to judge another culture. Anthropologists try very hard not to judge other cultures on the basis of the anthropologist’s own value system. This results in anthropologists often being considered somewhat distant, if not downright odd, by members of both cultures.

Culture: The Anthropological Focus

The focus of anthropological study is generally agreed to be that most human invention; culture. What, you ask, is culture? No discussion of anthropologists would be complete without a discussion of culture.

I doubt very seriously if you could actually find two anthropologists that would agree on any given definition. Since studying and, hopefully, someday, defining culture is one of the big things that anthropologists are supposed to be doing, this lack of agreement can occasionally cause problems. Consequently, anthropologists generally make their definitions of culture as broad as possible, in order to avoid being pinned down and having to say anything definite about how much they don’t understand.

Having said that, the definition of culture that I generally use is:

Culture is a name anthropologists give to the taken-for-granted but powerfully influential understandings and codes that are learned and shared by members of a group (usually called a society, comment added) (Peacock 1983:7).

Culture forms the basis for the ways people carry out almost all activities. What kind of work is acceptable, what kind of spouse (or spouses) is acceptable, where to live, how to dress, what to say, how to discipline your children, are all decisions that are culturally influenced. The “taken-for-granted” aspect of culture makes it something that most people don’t ever spend much time thinking about. Cultural rules aren’t written down, they are accepted as “right” or “correct” behavior, and anything else, such as the behavior of another culture, is seen as “bad”, “wrong”, or just “weird”. To the members of that other culture, however, nothing is out of place.

Cultures differ not just in the obvious, but also in more subtle ways: patterns of thinking, logic, perception, goals, ideals, myths, and maybe even psychological structure. To make a somewhat simple comparison between culture and language, cultures do not vary just in vocabulary, but also in sound and grammar (Cohen 1995:1). Cultural differences are mostly learned; they are not genetic. A human infant can grow up functioning in any culture its caretakers teach, just as it can grow up speaking any language it is taught.

All humans are part of a culture, and all cultures are composed of humans. You hear a great deal about corporate cultures, cultures of poverty, gay culture, yuppie culture (debatable at best), and lots of other “cultures”. Are these behaviors and social groupings actually cultures? I tend not to think so. Cultures persist through time, and are passed along from generation to generation. Cultures dictate basic ways of viewing the world, such as right and wrong, good and bad, acceptable and unacceptable. This is why, for instance, many people feel in conflict with “corporate cultures”, which may dictate behaviors that are found to clash with the deeper cultural value systems that workers may have grown up with.

Anthropologists are also often said to have an incredible grasp of the obvious. This may be true to a certain degree.

An example of this can be seen in the operations of a large multinational organization that set up offices in the Far East. Office managers were usually Americans, but office staff were hired locally. The American managers were constantly being frustrated by a lack of communication with employees, and employees that would only act when given direct orders. When all else failed, an anthropologist was called in to look at the situation.

It turned out that the managers were doing things perfectly right according to their own cultural standards. Schedules were being developed, products defined, and memos issued. People were being assigned to tasks and everyone was doing what they were supposed to do, according to American business standards. In spite of this, things simply weren’t getting done. The local people, however, operated according to a different set of cultural rules. The American managers were seen as overbearing, distant, cold, and uncaring. In the culture of the office staffs, managers, or “bosses”, had to develop personal commitment and loyalty from their workers. This

was done through socializing with the workers, being accessible, and keeping direct orders to a minimum, in order not to embarrass individual employees. The constant flow of direction and orders went against the cultural “grain” of the local workers, who were used to a much different work atmosphere.

The consulting anthropologist developed a way for the managers to spend more time with the employees, and suggested incorporating more “social” time into the daily schedules, as well as turning direct order into “suggestions” made in group settings. These things were done, and production went up a couple of hundred percent.

The anthropologist didn’t do anything magical. Neither side of the issue felt they were doing anything “wrong”, and indeed, they weren’t, according to each of their cultural norms. The anthropologist simply realized the “obvious” that each side of the situation was assuming, and explained the differences.

Anthropological Work in the NRCS

With that brief introduction to anthropology, let me move on to anthropological work in the NRCS. I am fairly certain that I am the first “anthropologist” employed by the NRCS since the 1940s. The agency currently employs a number of archaeologists and cultural resource specialists, but I am the only person currently on the rolls as an “anthropologist”. Consequently, there is not a strong tradition of anthropological practice within the agency that I can tell you about. I will note some areas that might benefit from the work of an anthropologist, and then describe some of the activities that I am currently involved in.

Anthropology can serve a number of uses in the NRCS. As the agency moves into different and expanded roles, and as our customer base diversifies, ways of understanding and working with different cultural and ethnic groups will become more and more important. Anthropologists can serve as “bridge-builders” between our agency and customers of other cultural backgrounds. In addition, there may well be a number of ways that anthropologists can benefit the internal functioning of the NRCS.

In many ways, the NRCS has a “culture”, or value and behavior system, of its own. The agency has its own peculiar language, its own set of values, its own set of acceptable behaviors, and its own set of traditional viewpoints. This also means that people within the agency have “blind spots” created by this internal agency culture. This is a common occurrence among the members of any “culture”, but can cause problems when working with people who don’t understand or conform to such unwritten codes and understandings.

An example of this is what I term the “same words, different meanings” situation. I’m sure that many of you in this room will be able to relate to this example. Take some words that are in common use in the NRCS, such as “practice”, “watershed”, or even “planning”. How often, in discussions with people outside the agency, have you seen these words being used to mean completely different things by both sides of the same conversation?

In the NRCS, “planning” means a number of things ranging from talking with a landowner at the local coffee shop, to the preparation of a formal plan document accounting for each of the nine steps of planning. Commonly, “planning” is considered to be a valid and useful activity that is the primary job of field offices. To people outside the NRCS, “planning” is a preliminary step that is done to get on with a project. To these people, planning is a finite activity. This is just one example of differences in interpretation and values that could be addressed by anthropologists.

Anthropologists are trained to identify “blind spots” like the “same words, different meanings” problem. Anthropologists are notorious for being good at making sure everybody is saying what they think they’re saying.

I am currently working on several projects that may serve to better illustrate the range and type of subjects that anthropologists deal with. In many ways, these projects are intended to help us better “grasp the obvious”.

I am working with a development team of NRCS, NEDC, and university people to develop a training course entitled “Consultation with American Indian Nations and Alaska Native Corporations”. This course is intended to explain the cultural, social, and legal aspects of working with Native peoples, and presents appropriate methods for establishing working relationships from both agency and Native perspectives. A unique aspect of the course is the focus on Alaska Native and American Indian groups as culturally distinct, sovereign nations. Many other agencies are currently engaging in limited consultation in order to comply with several Federal laws. This new training course will allow the NRCS to go well beyond compliance, and begin to build co-management partnerships with Indian nations and Alaska Native Corporations.

I am currently directing research through the University of Arizona that is exploring success indicators for public/private watershed partnerships. This research is centered around a model of partnership effectiveness. The model defines a continuum of success factors, and clearly identifies different factors and traits that should be present for optimizing the success of a public/private partnership. These factors and traits include such things as leadership styles and amounts, trust factors, types and constituencies of partners, and other “human” elements. At no point does the model require the number of practices that were implemented, or any other strictly biophysical data.

Data from three different NRCS watershed partnerships in the western US are being used to test this model. The results of this research will be published by the Social Sciences Institute for use by the conservation partnership. This effort will provide a working model of partnerships that can be used to begin building better partnering methods and tools. This is an excellent example of the benefits to be gained from having consortium personnel housed at universities. This type of research could simply not be done as well, as quickly, and as cheaply, within the agency.

I actively participated in the design of the recently released Conservation Planning Course, in cooperation with CEAD/NHQ and NEDC. I also serve as part of the instructor cadre for the initial delivery of this course nationally. A surprising amount of social and economic emphases actually got by the reviewers on this course, such as a movement away from a narrow focus on SWAPA, to a broader concept; the conservation planning environment. This concept places human concerns on an equal footing with biophysical resource concerns, and emphasizes the interactive nature of the planning environment. I often capture this idea by using the simple statement: "There would be no resource concerns without humans to define them". You might be surprised by how many NRCS people consider this to be a radical way of looking at natural resource issues.

In summary, I firmly believe that the use of anthropological perspectives and methods can greatly benefit agency operations. The projects I just described, and others, are being done with several things in mind. First, the "human" element is never an afterthought, and should always be an integral consideration in agency activities. Second, humans are not somehow separate from the rest of the environment. Third, viewing things holistically usually results in better products, whether those products are relations with our traditional customers or new ways to do business with new customers.

And finally, I am still learning that as hard as I try, it is obvious that the obvious is not always obvious, even to an anthropologist.

References Cited

Cohen, Mark

1995 Cultural Bias in Testing: An Anthropologist's View. Downloaded from Smithsonian Institution, Museum of Natural History, Anthro Notes, Winter 1995, World Wide Web site.

Peacock, James L.

1983 The Anthropological Lens, Harsh Light, Soft Focus. The Cambridge University Press. Cambridge, UK.

**National Economics & Social Sciences Meeting
Close Out
Jerry Hammond, Director, IPD**

My personal thanks again to Michelle, Marita and Renna for putting together such a great meeting. The meeting far surpassed my expectations and I hope it did for you, too. We had fun, we renewed old relationships and we made many new friends. You should now have a better understanding on how you see yourself (animal) and how others see you (color).

The focus of our meeting has been on integrating economics and social sciences into our agency. You should all return to your work with many with new ideas and a better understanding on how to do this.

I was very pleased that the Chief, the Acting Associate Chief, the Deputy Chief for Programs, the Regional Conservationist for the Southeast Region, several NHQ Division Directors, three State Conservationists, and an Institute Director joined our discussions. The interaction with our leadership was great. I know they will now have a better sense of what each of you can do to help them make better decisions.

In our welcome session, Dwight Holman challenged each of us to “get out of the box.” He used an analytical example of a box to reinforce this concept. How many boxes did each of you find?

The Chief discussed many items that are relevant to our work. He discussed things from a global perspective, outlining our international responsibilities. The Chief commended us for a great strategic plan stating “it is the most positive report I have seen coming out of our agency.” He discussed the recent A Geography of Hope--America's Private Land and encouraged all of us to read it. He even gave his copy to June Grabemeyer who indicated she had not seen it. It is the Chief's vision and we should understand and support it. The major idea I gleaned from his comments was related to America's private land when he stated “don't fence me in.” This could apply to us, too.

Gary Margheim, Acting Associate Chief, speaking for the Deputy Chief for Science and Technology, made several major points for us to consider. He talked about building on sound science and being flexible and innovative. He said we should be effective communicators, team players and keep an eye on the future. The two points he made that I particularly liked were “if it ain't broke, break it” and “if the horse is dead, get off.” Do these apply to us, our disciplines or our role in NRCS?

Larry Clark, Deputy Chief for Programs and my new boss, made several relevant points for us to consider. He spoke of a community of global thinkers, not just being on a spaceship alone. The concept of systems thinking was discussed and he said we should be challenged to think about equity. He asked what we can personally do? He asked us to consider what our sense of purpose is, stating that we must “give before we get.” I fully agree with his comment, “don't abandon your analytical tools.” The economists in NRCS are the best analysts in the agency, and I have argued many times that we need to be called on more to exercise our skills.

Our luncheon speaker, who talked about financial planning, gave us a lot of food for thought. No pun intended. I liked his philosophy and behave much the way he espoused. I only have two credit cards, one for business and one for personal use. I have never purchased a car on credit. I am the kind of person the banks want to charge for not using credit. I guess it is my conservative economics training.

We had many other speakers discuss their programs, area of expertise or responsibilities. Each gave us important information and guidance. In the interest of time, however, I would like to highlight a few comments from the regional presentations. I know that a lot of thought and discussion went into each of them and you are to be commended for it.

I really appreciate the issues, problems and concerns that were surfaced in these presentations. A career path for economists appears to be a problem of broad concern. Several of you indicated there is a need for a trainee program similar to what we had a few years ago. There was concern expressed how you could meet regionally. How would we obtain the funds to meet? There was a concern expressed on how to improve the flow of technical information, especially FOCS.

You raised many other questions. How do we maintain adequate economic visibility? How do we maintain economic positions when they become vacant? How will they be filled? What can be done about developmental assignments? How do we maintain quality assurance or accountability? What is the role of the State Conservationist as a mentor? While we cannot address them now, Peter Smith and others should address them in the future.

What did you think about the concurrent interactive workshops? They appeared to be very successful to me. I was pleased with the presentations and discussions in each. It was difficult to get you to move to the next session, and very few of you took breaks between sessions. Either we did not allot sufficient time for each session or you were totally engrossed with the issues being discussed. In either case, there were a lot of information and ideas exchanged. I would like to congratulate each of the session presenters for doing such a great job.

In the time remaining, I have a few swan song comments to make. I have thoroughly enjoyed working with each of you. You have been very supportive of the things that I have been trying to accomplish. While we have more to do, we need to stop occasionally and “smell the roses,” count our blessings for working for a great agency, and congratulate ourselves on our accomplishments. Thanks!!!

The following items are a result of some general observations that I gleaned from the past two and one-half days:

1. **Continue the journey.** It is up to each of you to integrate economics and social sciences into our agency. Do everything you can to help change the culture. We are the key to success.

2. **Be objective.** I cannot stress this enough. Without it, we are not a science. With it, we are a powerful force. There are times that it would be easier to cave in and produce results that others desire. However, are we doing the right thing when we are not objective in our analyses? There are some in this room who did not cave in and it was at a great personal cost. It is your decision.

3. **Be professional.** If you want to be treated like a professional, then you need to act like a professional. Part of being a professional also means participating in a professional society. I am a recruiter for SWCS and would love to talk to you individually about the value and benefit of belonging to a professional society.

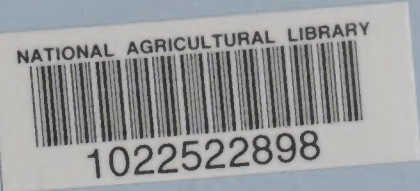
4. **Develop networks.** Without a “trap line” you are on our own. Have you tried to carry on a conversation with yourself lately? It may not be difficult for you, but it is for me. The interchange and sharing that takes place as part of networking is very important. I would encourage inviting universities, the Economic Research Service, and the private sector to participate with ECONNECT. We will all profit from having other resource economists join our crowd.

5. **Publish.** Some of the best tracks we can leave are those that are in the written form. We all do work for some special activity. With a little extra effort, it can usually be published in some form. There is a great sense of pride when you see your name in print and it provides a great professional image for our agency.

6. **Focus on added value.** If there is one profession in NRCS that should understand this best, it is ours. Not only should we focus on added value, we should focus on added value to NRCS’ customers.

7. **Be a leader.** I began my comments on Tuesday talking about a simple framework for leadership. You are all leaders and I encourage you to look at the framework and judge yourself by it.

If there is nothing more to say, I declare the National Economics and Related Social Sciences Meeting closed. Thank you for all your help and participation. I hope you all have a safe journey home.



* NATIONAL AGRICULTURAL LIBRARY



1022522898